



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
414123
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor. (Customer Sample Comment: Engine)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0112111	GFL0112114	GFL0094062
Sample Date		Client Info		21 May 2024	17 Feb 2024	04 Dec 2023
Machine Age	mls	Client Info		29609	18889	9412
Oil Age	mls	Client Info		29609	18889	9412
Filter Age	mls	Client Info		0	18889	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	16	63	42
Chromium	ppm	ASTM D5185m	>4	0	1	<1
Nickel	ppm	ASTM D5185m	>2	<1	<1	<1
Titanium	ppm	ASTM D5185m		0	<1	<1
Silver	ppm	ASTM D5185m	>2	<1	<1	0
Aluminum	ppm	ASTM D5185m	>25	2	2	9
Lead	ppm	ASTM D5185m	>45	<1	0	0
Copper	ppm	ASTM D5185m	>85	<1	3	12
Tin	ppm	ASTM D5185m	>4	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

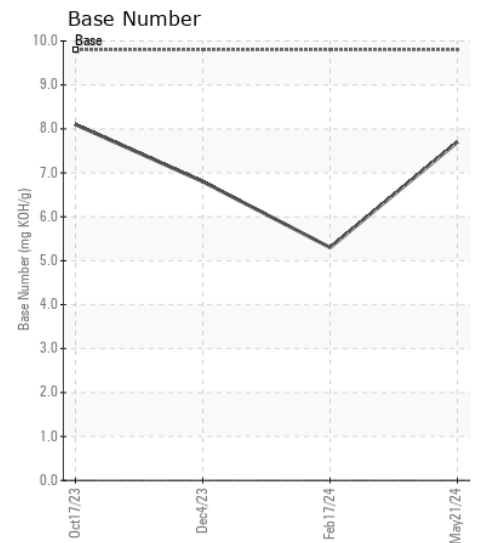
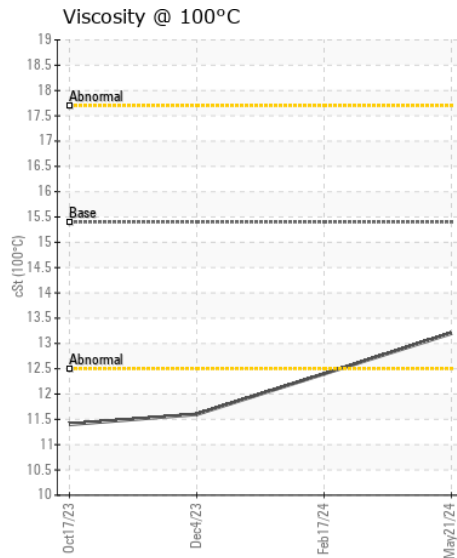
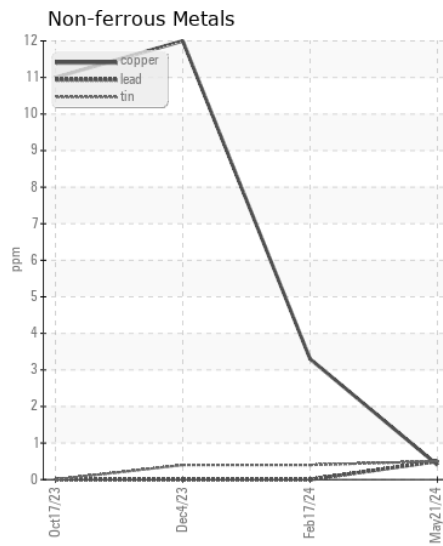
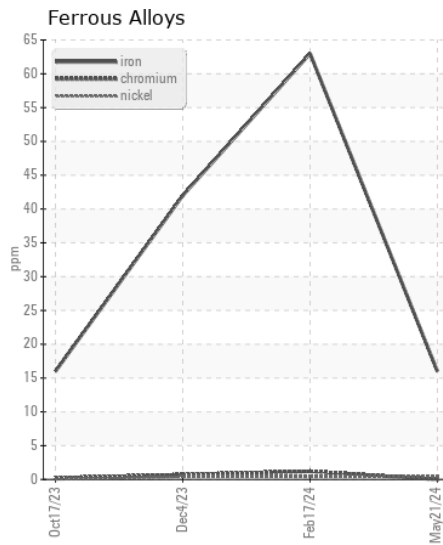
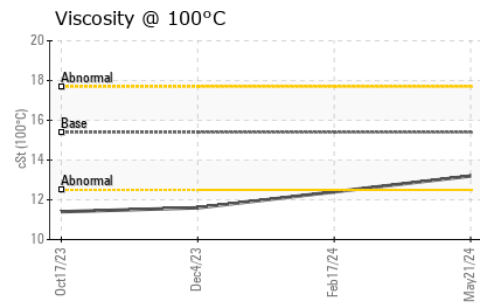
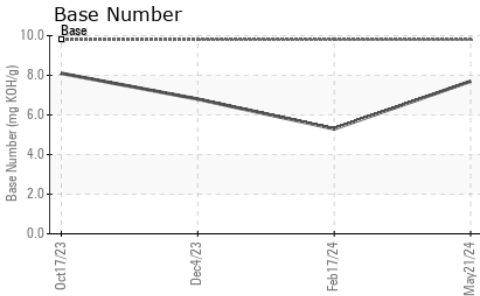
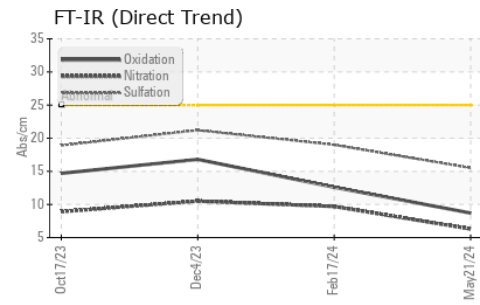
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	13	8	18
Potassium	ppm	ASTM D5185m	>20	2	9	30
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	0.2	0.7	0.7
Nitration	Abs/cm	*ASTM D7624	>20	6.3	9.7	10.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	15.5	19.0	21.2
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		1	0	4
Boron	ppm	ASTM D5185m	0	<1	<1	26
Barium	ppm	ASTM D5185m	0	0	<1	<1
Molybdenum	ppm	ASTM D5185m	60	46	53	20
Manganese	ppm	ASTM D5185m	0	<1	1	5
Magnesium	ppm	ASTM D5185m	1010	12	57	594
Calcium	ppm	ASTM D5185m	1070	2310	2259	1553
Phosphorus	ppm	ASTM D5185m	1150	990	1007	767
Zinc	ppm	ASTM D5185m	1270	1221	1149	945
Sulfur	ppm	ASTM D5185m	2060	3325	2974	2900
Oxidation	Abs/.1mm	*ASTM D7414	>25	8.7	12.6	16.8
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.7	5.3	6.8
Visc @ 100°C	cSt	ASTM D445	15.4	13.2	12.4	11.6



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0112111
Lab Number : 06190227
Unique Number : 11046979
Test Package : FLEET

Received : 24 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Sean Felton

GFL Environmental - 983 - Sugar Land Hauling
 16011 West Belfort Street
 Sugar Land, TX
 US 77498

Contact: Adrian Martinez
 adrianmartinez@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: