



Machine Id
726038-310028
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0120153	GFL0117206	GFL0114079
Sample Date		Client Info		30 May 2024	26 Apr 2024	26 Mar 2024
Machine Age	hrs	Client Info		16646	16494	16354
Oil Age	hrs	Client Info		0	0	600
Filter Age	hrs	Client Info		0	0	600
Oil Changed		Client Info		Not Changd	Not Changd	Changed
Filter Changed		Client Info		Not Changd	Not Changd	Changed
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

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

CONTAMINATION

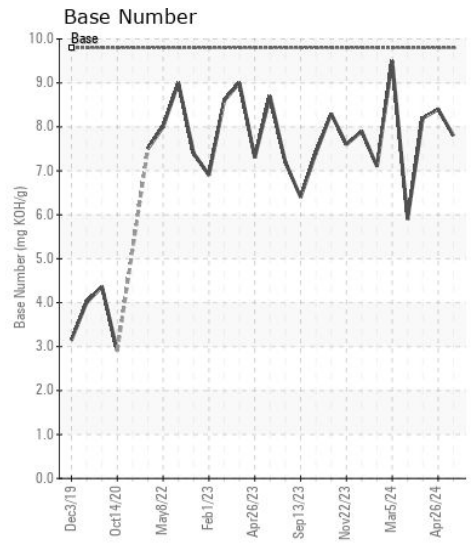
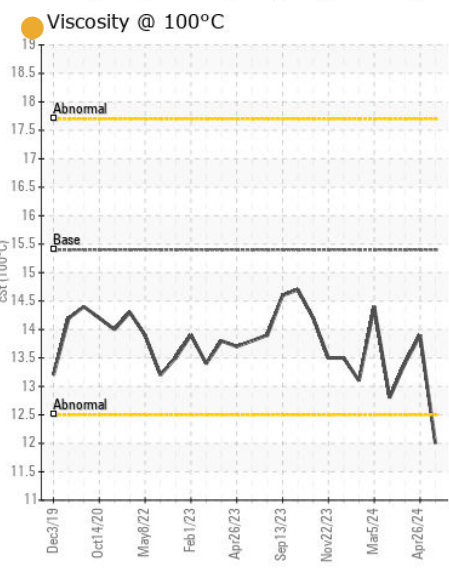
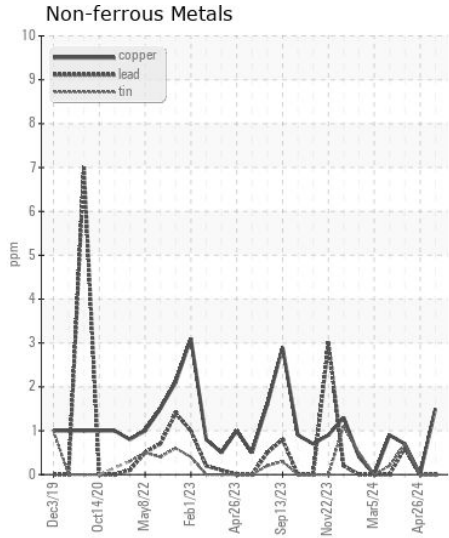
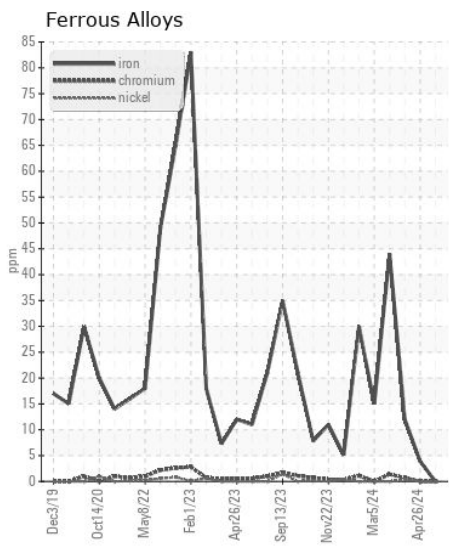
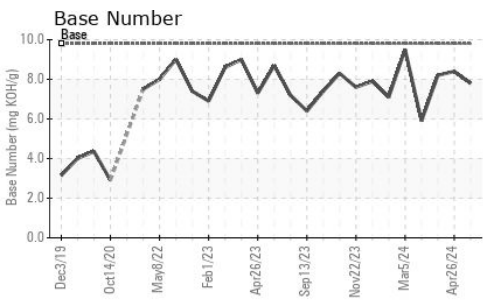
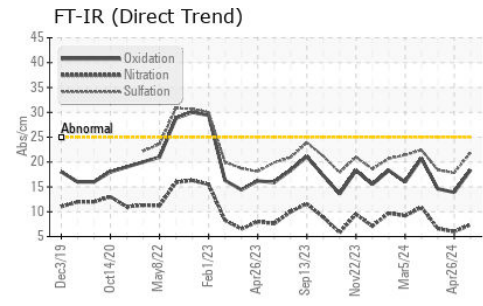
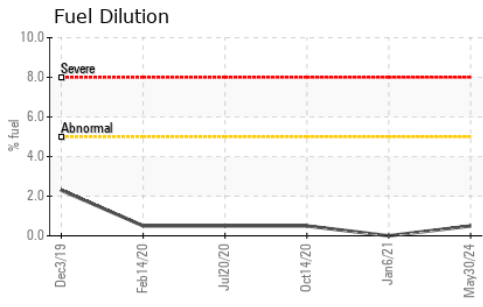
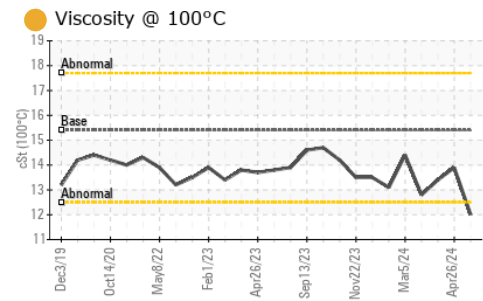
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	0	4	4
Potassium	ppm	ASTM D5185m	>20	<1	0	2
Fuel	%	ASTM D3524	>5	0.5	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.4	6.0	6.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	17.8	18.4
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		1	2	2
Boron	ppm	ASTM D5185m	0	43	8	6
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	1	62	58
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	804	965	860
Calcium	ppm	ASTM D5185m	1070	1235	1153	1107
Phosphorus	ppm	ASTM D5185m	1150	741	1079	1002
Zinc	ppm	ASTM D5185m	1270	832	1264	1157
Sulfur	ppm	ASTM D5185m	2060	2585	3571	3127
Oxidation	Abs/.1mm	*ASTM D7414	>25	18.4	13.9	14.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.8	8.4	8.2
Visc @ 100°C	cSt	ASTM D445	15.4	12.0	13.9	13.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0120153 **Received** : 03 Jun 2024
Lab Number : 06197304 **Tested** : 05 Jun 2024
Unique Number : 11059427 **Diagnosed** : 05 Jun 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 836 - Kansas City Hauling
 7801 East Truman Road
 Kansas City, MO
 US 64126
 Contact: Loyce Stewart
 loyce.stewart@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)