



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
255001-838
 Component
Gasoline Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. (Customer Sample Comment: Services completed)

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0116247	GFL0116271	GFL0094853
Sample Date		Client Info		09 May 2024	18 Mar 2024	06 Nov 2023
Machine Age	mls	Client Info		192466	191236	180842
Oil Age	mls	Client Info		11167	7683	11253
Filter Age	mls	Client Info		11167	7683	11253
Oil Changed		Client Info		Changed	Not Changd	Not Changd
Filter Changed		Client Info		Changed	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>150	45	24	23
Chromium	ppm	ASTM D5185m	>20	3	2	1
Nickel	ppm	ASTM D5185m	>5	1	<1	<1
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>40	8	5	4
Lead	ppm	ASTM D5185m	>50	<1	<1	0
Copper	ppm	ASTM D5185m	>155	2	1	<1
Tin	ppm	ASTM D5185m	>10	<1	<1	0
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

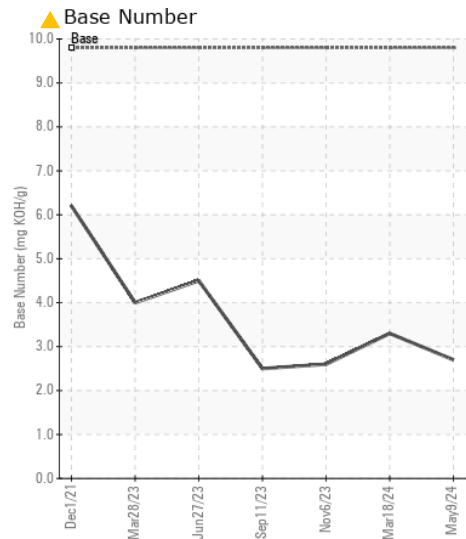
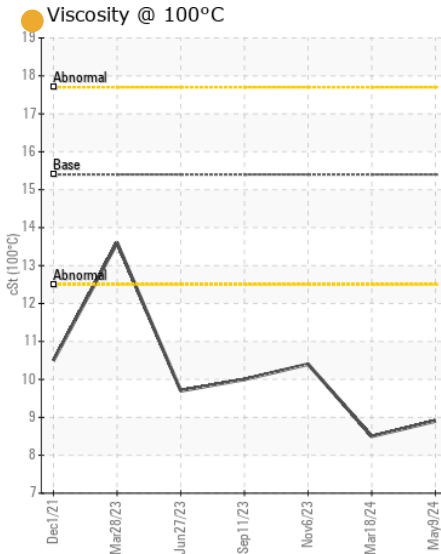
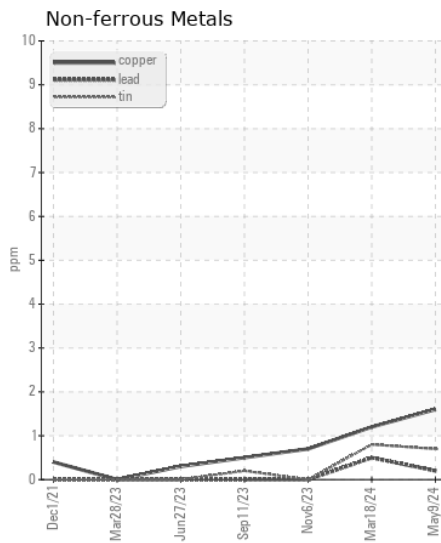
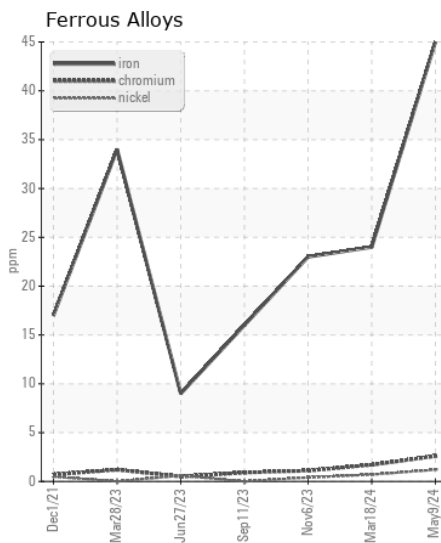
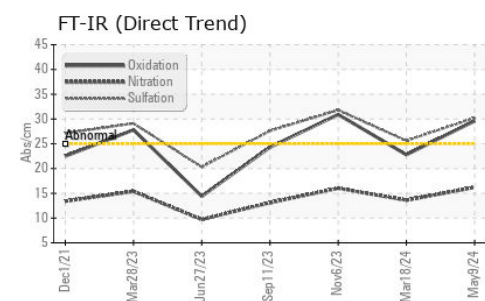
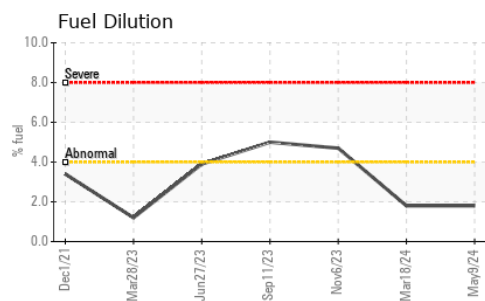
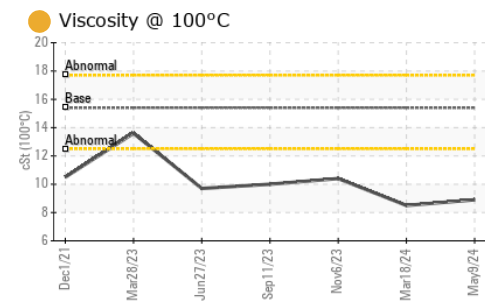
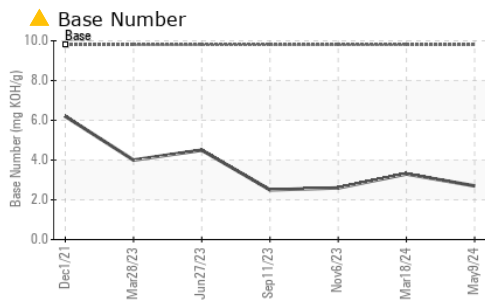
Fuel content negligible. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>30	16	11	17
Potassium	ppm	ASTM D5185m	>20	4	2	3
Fuel	%	ASTM D3524	>4.0	1.8	1.8	▲ 4.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	16.2	13.6	16.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.2	25.6	31.8
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 level is low. Confirm oil type.

Sodium	ppm	ASTM D5185m	>400	13	8	2
Boron	ppm	ASTM D5185m	0	38	33	21
Barium	ppm	ASTM D5185m	0	0	<1	<1
Molybdenum	ppm	ASTM D5185m	60	100	75	86
Manganese	ppm	ASTM D5185m	0	2	1	1
Magnesium	ppm	ASTM D5185m	1010	628	522	492
Calcium	ppm	ASTM D5185m	1070	1162	961	876
Phosphorus	ppm	ASTM D5185m	1150	684	648	540
Zinc	ppm	ASTM D5185m	1270	850	701	703
Sulfur	ppm	ASTM D5185m	2060	3332	2668	2213
Oxidation	Abs/.1mm	*ASTM D7414	>25	29.6	22.8	30.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	▲ 2.7	▲ 3.3	▲ 2.6
Visc @ 100°C	cSt	ASTM D445	15.4	● 8.9	● 8.5	▲ 10.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116247 **Received** : 13 May 2024
Lab Number : 06178160 **Tested** : 17 May 2024
Unique Number : 11029486 **Diagnosed** : 17 May 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

GFL Environmental - 625 - Harrison Hauling
 2480 S Clare Ave
 Clare, MI
 US 48617
 Contact: Glenda Standen
 gstanden@gflenv.com

Certificate L2367
 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)