



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
GFL891 ON HOLD

Machine Id
429075

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0109270	GFL0048374	GFL0093521
Sample Date		Client Info		09 Feb 2024	11 Jan 2024	25 Sep 2023
Machine Age	hrs	Client Info		4816	4788	4778
Oil Age	hrs	Client Info		28	250	4664
Filter Age	hrs	Client Info		28	250	114
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	16	78	83
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
Titanium	ppm	ASTM D5185m		19	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	3	15	12
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	4	16	15
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

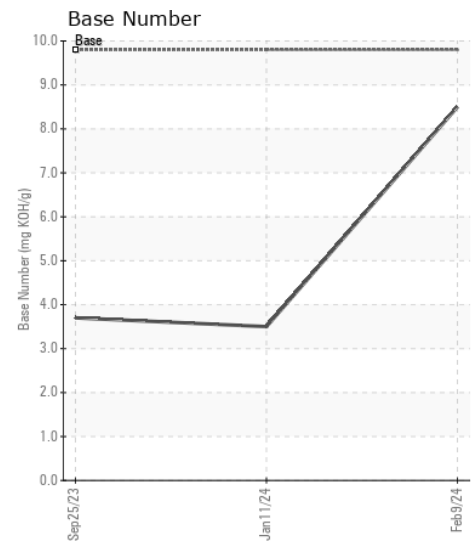
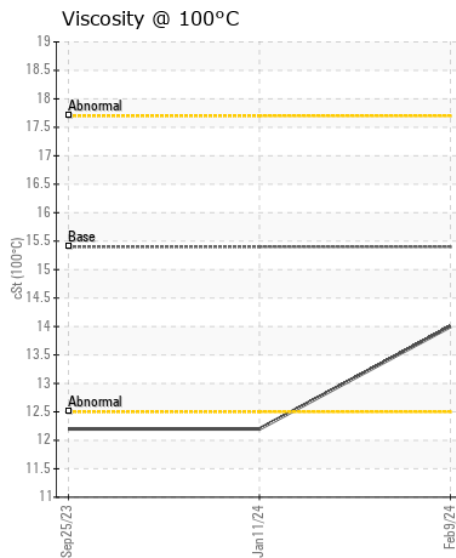
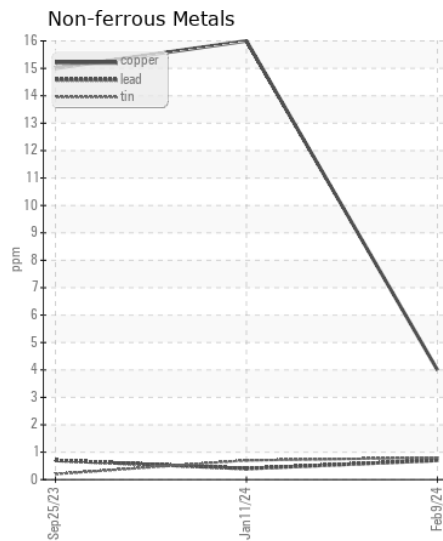
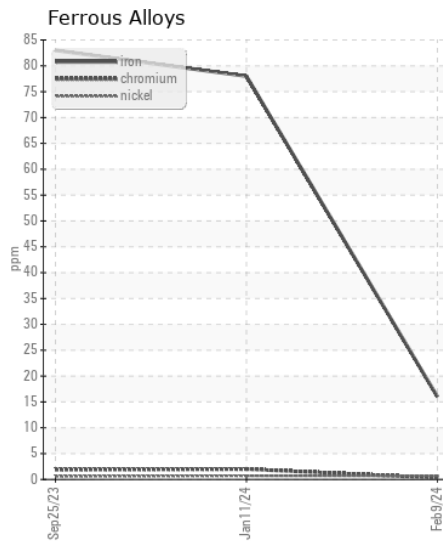
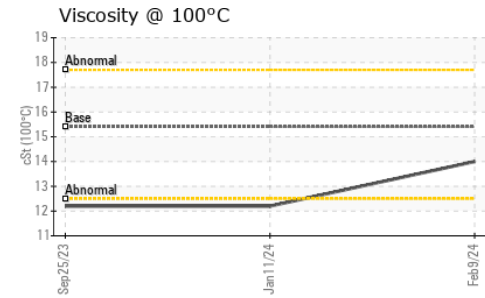
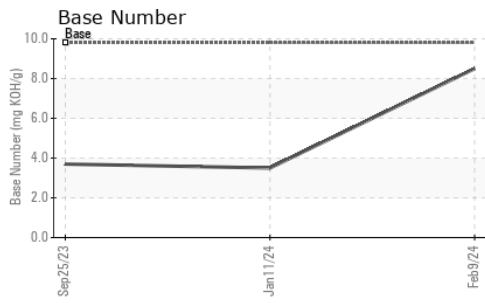
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	14	14
Potassium	ppm	ASTM D5185m	>20	6	25	28
Fuel		WC Method	>5	<1.0	<1.0	▲ 3.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.8	0.8
Nitration	Abs/cm	*ASTM D7624	>20	6.5	13.3	13.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	30.7	30.8
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 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		0	3	7
Boron	ppm	ASTM D5185m	0	29	4	15
Barium	ppm	ASTM D5185m	0	13	0	0
Molybdenum	ppm	ASTM D5185m	60	51	68	69
Manganese	ppm	ASTM D5185m	0	1	4	3
Magnesium	ppm	ASTM D5185m	1010	703	249	256
Calcium	ppm	ASTM D5185m	1070	1240	1819	2038
Phosphorus	ppm	ASTM D5185m	1150	948	908	919
Zinc	ppm	ASTM D5185m	1270	1163	1154	1207
Sulfur	ppm	ASTM D5185m	2060	3623	3247	4177
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.3	28.9	29.0
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.5	▲ 3.5	▲ 3.7
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	▲ 12.2	▲ 12.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0109270
Lab Number : 06086545
Unique Number : 10873990
Test Package : FLEET

Received : 12 Feb 2024
Tested : 13 Feb 2024
Diagnosed : 13 Feb 2024 - Wes Davis

GFL Environmental - 891 - Oklahoma City Hauling
 1001 South Rockwell
 Oklahoma City, OK
 US 73128
 Contact: Andy Smith
 andrew.smith@gflenv.com
 T: (405)306-1651
 F:

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)