



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
MONTGOMERY
Machine Id
MACK 913101
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		GFL0087970	GFL0091314	GFL0091287
Sample Date		Client Info		29 Dec 2023	12 Dec 2023	22 Nov 2023
Machine Age	hrs	Client Info		2138	2043	1914
Oil Age	hrs	Client Info		95	557	428
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Not Changd
Filter Changed		Client Info		Not Changd	Changed	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	9	59	55
Chromium	ppm	ASTM D5185m	>20	<1	2	2
Nickel	ppm	ASTM D5185m	>5	<1	6	6
Titanium	ppm	ASTM D5185m	>2	0	0	<1
Silver	ppm	ASTM D5185m	>2	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	2	6	5
Lead	ppm	ASTM D5185m	>40	0	1	<1
Copper	ppm	ASTM D5185m	>330	2	20	21
Tin	ppm	ASTM D5185m	>15	0	2	2
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

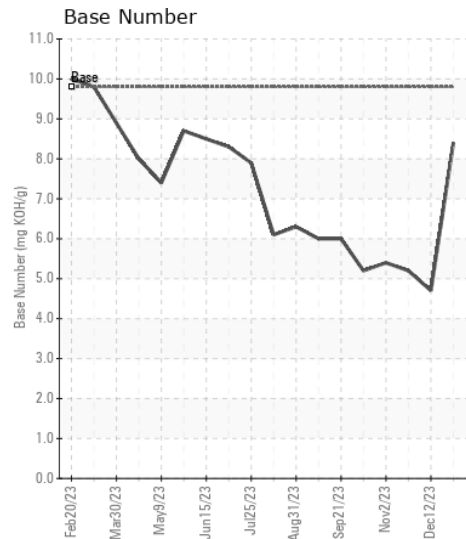
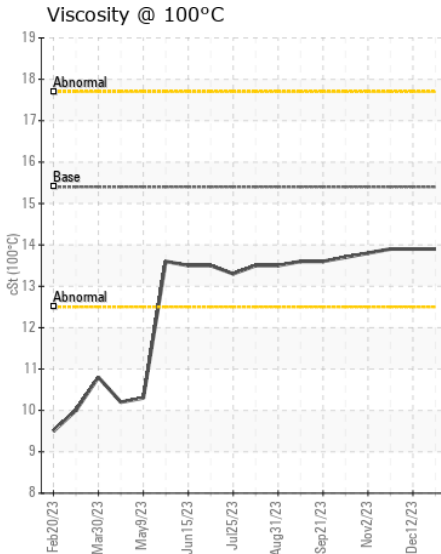
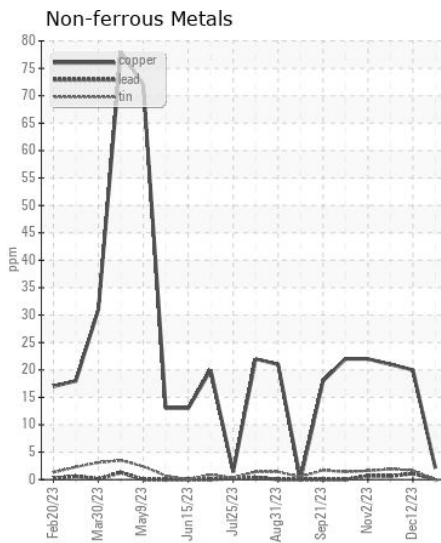
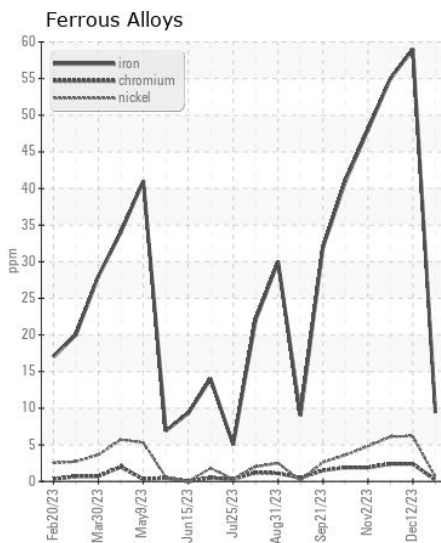
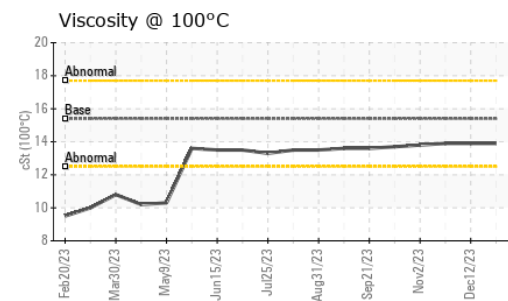
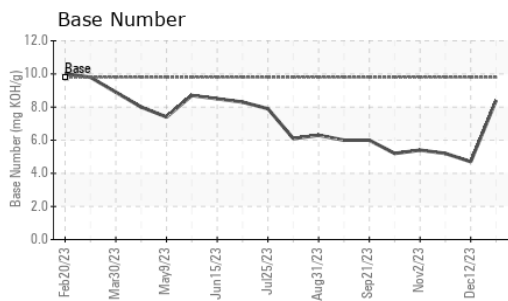
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	18	17
Potassium	ppm	ASTM D5185m	>20	3	17	18
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.3	1.5	1.3
Nitration	Abs/cm	*ASTM D7624	>20	6.6	13.4	12.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	26.8	25.4
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 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		2	7	6
Boron	ppm	ASTM D5185m	0	2	2	3
Barium	ppm	ASTM D5185m	0	0	0	1
Molybdenum	ppm	ASTM D5185m	60	61	69	71
Manganese	ppm	ASTM D5185m	0	0	2	2
Magnesium	ppm	ASTM D5185m	1010	982	993	1012
Calcium	ppm	ASTM D5185m	1070	1072	1131	1176
Phosphorus	ppm	ASTM D5185m	1150	1044	901	995
Zinc	ppm	ASTM D5185m	1270	1236	1265	1274
Sulfur	ppm	ASTM D5185m	2060	3361	2294	2531
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	25.0	23.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.4	4.7	5.2
Visc @ 100°C	cSt	ASTM D445	15.4	13.9	13.9	13.9



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0087970 **Received** : 10 Jan 2024
Lab Number : 06057277 **Diagnosed** : 11 Jan 2024
Unique Number : 10823226 **Diagnostician** : Wes Davis
Test Package : FLEET

GFL Environmental - 955 - Montgomery
 1121 Wilbanks St
 Montgomery, AL
 US 36108
 Contact: LISA REEVES

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)