



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
828038
 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		GFL0110170	GFL0085571	GFL0060447
Sample Date		Client Info		22 Apr 2024	17 Oct 2023	09 Feb 2023
Machine Age	hrs	Client Info		13626	12487	10943
Oil Age	hrs	Client Info		600	600	600
Filter Age	hrs	Client Info		600	600	600
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	15	20	11
Chromium	ppm	ASTM D5185m	>4	1	1	<1
Nickel	ppm	ASTM D5185m	>2	1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	2	2	<1
Lead	ppm	ASTM D5185m	>45	3	8	<1
Copper	ppm	ASTM D5185m	>85	5	2	2
Tin	ppm	ASTM D5185m	>4	1	2	<1
Vanadium	ppm	ASTM D5185m		<1	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.

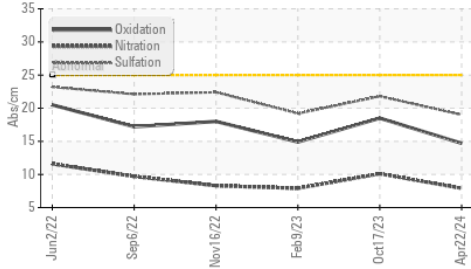
Silicon	ppm	ASTM D5185m	>30	7	13	8
Potassium	ppm	ASTM D5185m	>20	1	2	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.6	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.9	10.1	7.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.0	21.8	19.2
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

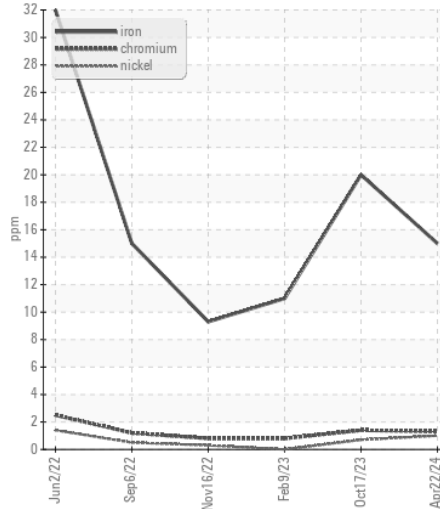
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		5	8	3
Boron	ppm	ASTM D5185m	0	3	4	5
Barium	ppm	ASTM D5185m	0	0	0	<1
Molybdenum	ppm	ASTM D5185m	60	58	66	59
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	946	1071	877
Calcium	ppm	ASTM D5185m	1070	1069	1194	1097
Phosphorus	ppm	ASTM D5185m	1150	1227	1139	972
Zinc	ppm	ASTM D5185m	1270	1289	1506	1172
Sulfur	ppm	ASTM D5185m	2060	3656	2872	2775
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.7	18.5	14.9
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.3	6.3	7.6
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	13.4	13.1

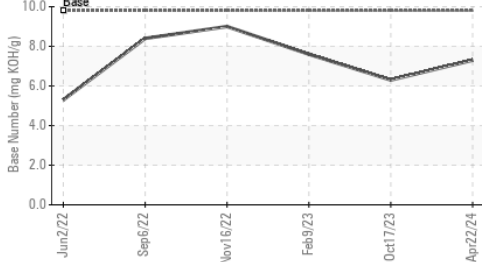
FT-IR (Direct Trend)



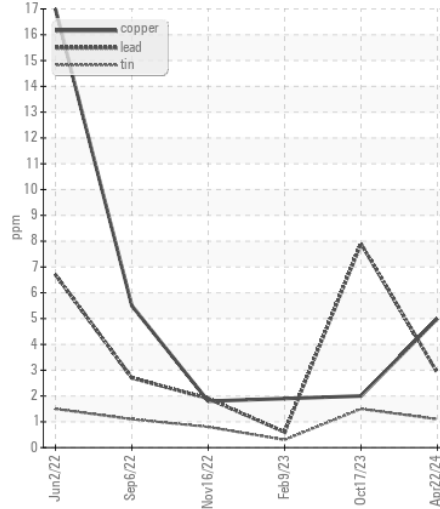
Ferrous Alloys



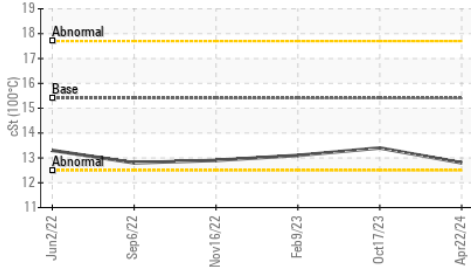
Base Number



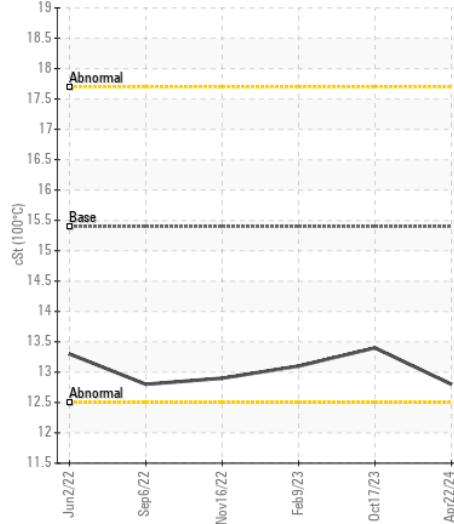
Non-ferrous Metals



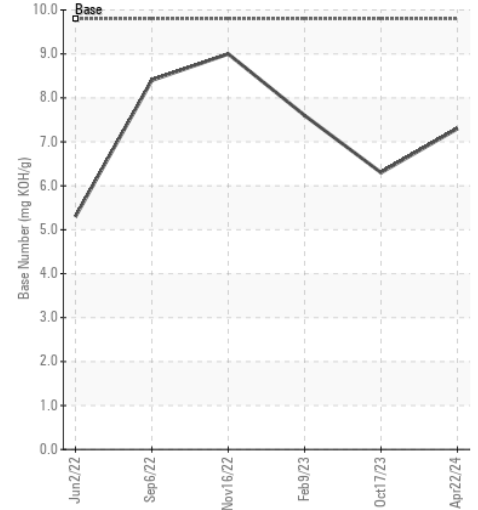
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0110170
Lab Number : 06161132
Unique Number : 10996555
Test Package : FLEET

Received : 25 Apr 2024
Tested : 29 Apr 2024
Diagnosed : 29 Apr 2024 - Wes Davis

GFL Environmental - 660 - Lynchburg Hauling
 2410 Mayflower Drive
 Lynchburg, VA
 US 24501

Contact: Delbert Beasley
 dbeasley@countryrecycling.net

T: (434)665-5998

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)