



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Area
(BD56697)
Machine Id
914055
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		GFL0116069	GFL0029671	GFL0092960
Sample Date		Client Info		22 May 2024	02 Feb 2024	27 Nov 2023
Machine Age	hrs	Client Info		32	32	32
Oil Age	hrs	Client Info		32	32	32
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	N/A	N/A
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>120	21	78	56
Chromium	ppm	ASTM D5185m	>20	2	2	<1
Nickel	ppm	ASTM D5185m	>5	3	9	6
Titanium	ppm	ASTM D5185m	>2	<1	<1	0
Silver	ppm	ASTM D5185m	>2	2	0	0
Aluminum	ppm	ASTM D5185m	>20	3	8	5
Lead	ppm	ASTM D5185m	>40	<1	0	0
Copper	ppm	ASTM D5185m	>330	20	69	88
Tin	ppm	ASTM D5185m	>15	2	4	3
Vanadium	ppm	ASTM D5185m		<1	<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.

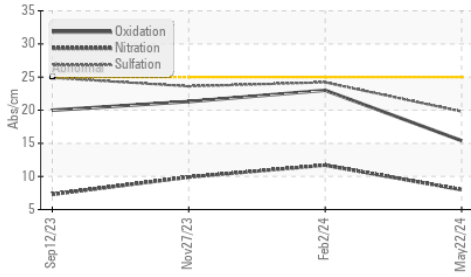
Silicon	ppm	ASTM D5185m	>25	11	61	54
Potassium	ppm	ASTM D5185m	>20	9	20	8
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.5	0.8	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.0	11.7	9.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.8	24.2	23.6
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

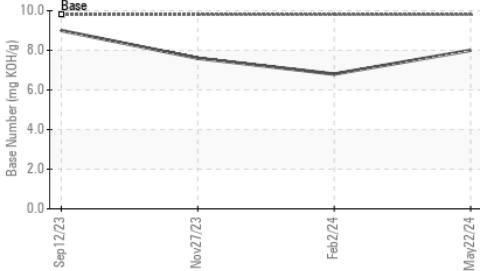
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		3	4	3
Boron	ppm	ASTM D5185m	0	12	73	152
Barium	ppm	ASTM D5185m	0	1	0	0
Molybdenum	ppm	ASTM D5185m	60	67	123	108
Manganese	ppm	ASTM D5185m	0	1	5	3
Magnesium	ppm	ASTM D5185m	1010	934	730	723
Calcium	ppm	ASTM D5185m	1070	1138	1351	1460
Phosphorus	ppm	ASTM D5185m	1150	992	755	704
Zinc	ppm	ASTM D5185m	1270	1205	907	916
Sulfur	ppm	ASTM D5185m	2060	3108	2232	2363
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.4	23.0	21.3
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.0	6.8	7.6
Visc @ 100°C	cSt	ASTM D445	15.4	12.9	10.7	10.6

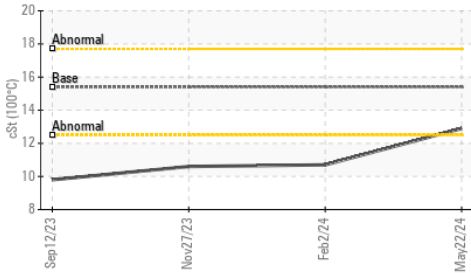
FT-IR (Direct Trend)



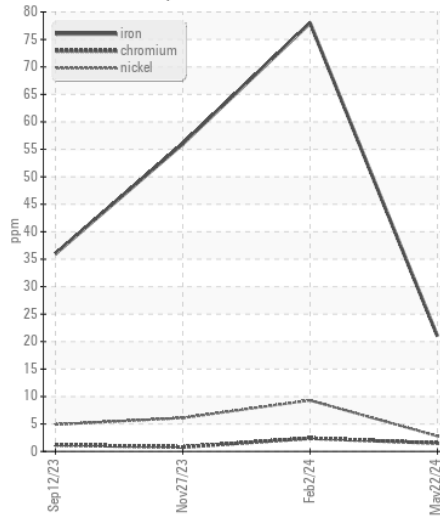
Base Number



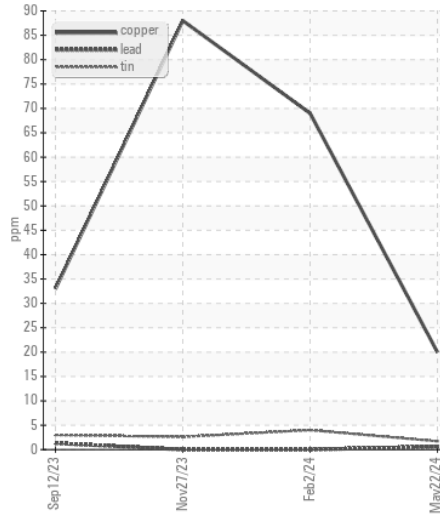
Viscosity @ 100°C



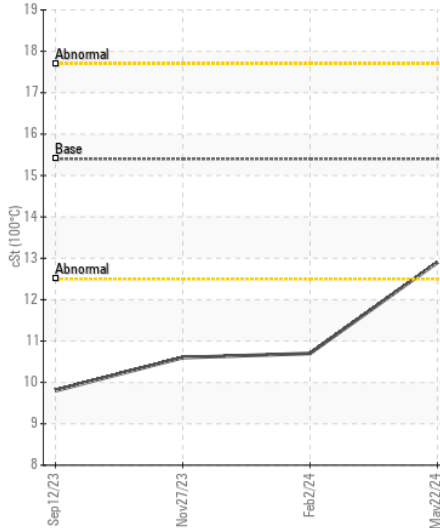
Ferrous Alloys



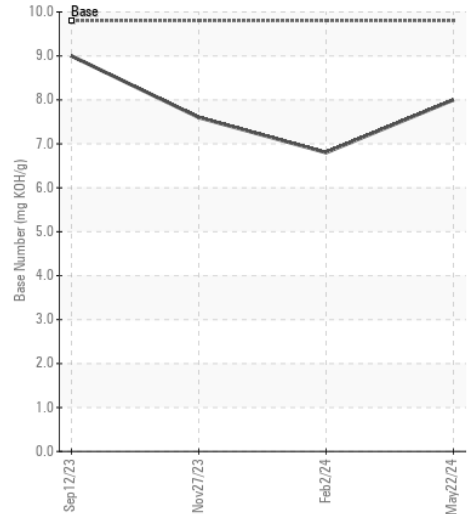
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0116069
Lab Number : 06191889
Unique Number : 11048641
Test Package : FLEET

Received : 28 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Wes Davis

GFL Environmental - 463 - Cheboygan
 501 N. Western Ave
 Cheboygan, MI
 US 49721
 Contact: GARY BREWER

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)

T:
F: