



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

(YA144055)

Machine Id

10869

Component

Front 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		GFL0094490	GFL0048094	GFL0048161
Sample Date		Client Info		08 Jul 2024	12 Sep 2022	25 May 2022
Machine Age	hrs	Client Info		17871	17871	17209
Oil Age	hrs	Client Info		17209	0	600
Filter Age	hrs	Client Info		0	0	600
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	14	33	4
Chromium	ppm	ASTM D5185m	>20	<1	1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	7	4	1
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	1	2	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		<1	0	<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.

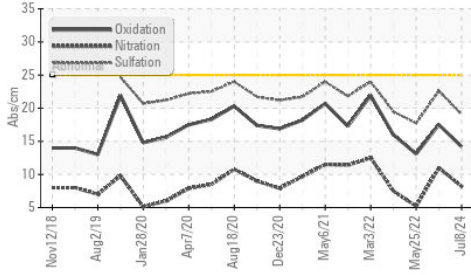
Silicon	ppm	ASTM D5185m	>25	6	7	3
Potassium	ppm	ASTM D5185m	>20	3	1	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.8	1.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.2	11.0	5.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.1	22.6	17.7
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

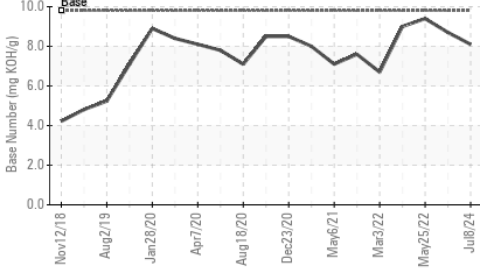
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		13	6	2
Boron	ppm	ASTM D5185m	0	3	10	19
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	69	61	58
Manganese	ppm	ASTM D5185m	0	0	<1	<1
Magnesium	ppm	ASTM D5185m	1010	1013	851	918
Calcium	ppm	ASTM D5185m	1070	1248	1071	1095
Phosphorus	ppm	ASTM D5185m	1150	1152	970	1027
Zinc	ppm	ASTM D5185m	1270	1363	1203	1240
Sulfur	ppm	ASTM D5185m	2060	3097	2779	2939
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.2	17.5	13.1
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	8.1	8.7	9.4
Visc @ 100°C	cSt	ASTM D445	15.4	13.1	14.1	14.3

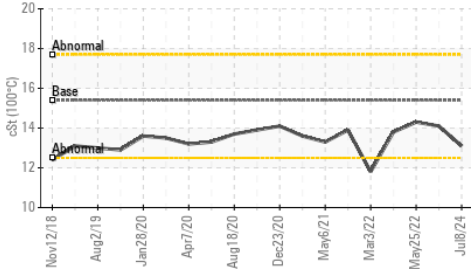
FT-IR (Direct Trend)



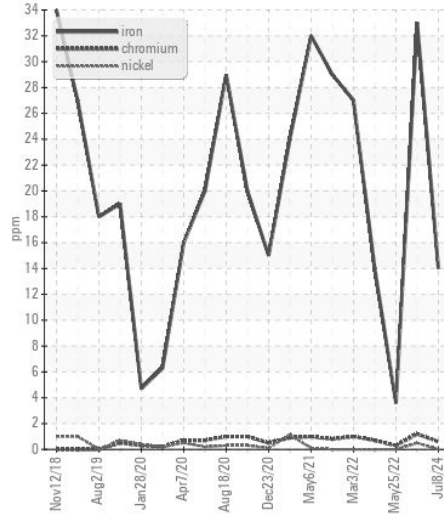
Base Number



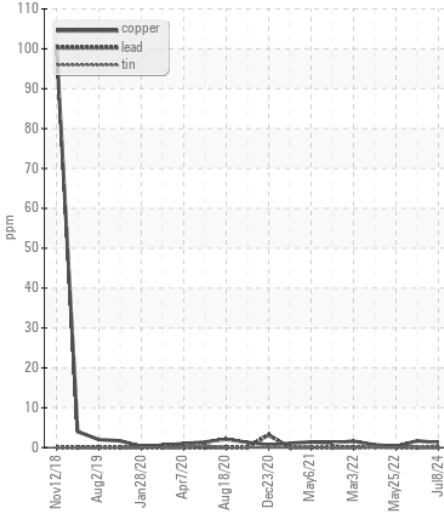
Viscosity @ 100°C



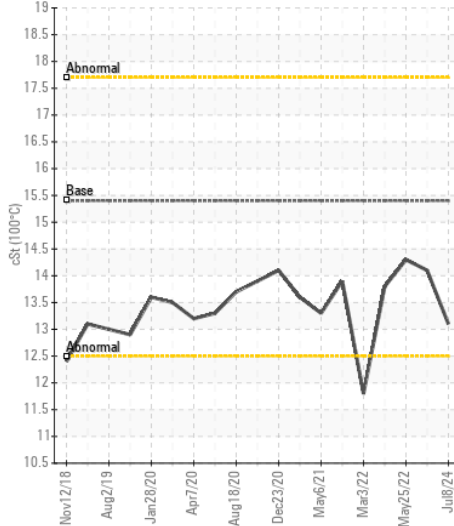
Ferrous Alloys



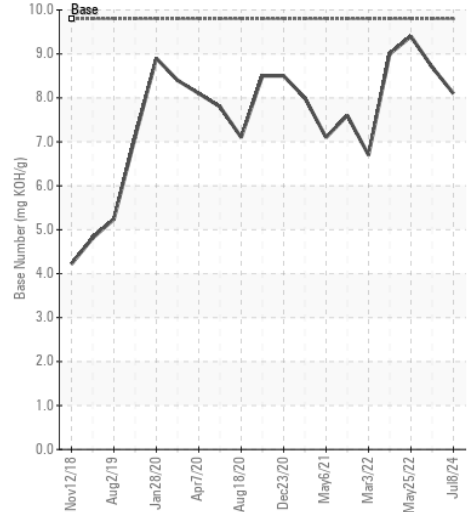
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0094490 **Received** : 12 Jul 2024
Lab Number : 06234608 **Tested** : 15 Jul 2024
Unique Number : 11123442 **Diagnosed** : 15 Jul 2024 - Wes Davis
Test Package : FLEET

GFL Environmental - 119 - Williamston Hauling/TriEast
 1805 West Main Street
 Williamston, NC
 US 27892
 Contact: Spencer Ligon
 spencer.ligon@gflenv.com
 T: (800)207-6618
 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)