



Machine Id
726036-310024

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		GFL0109831	GFL0103344	GFL0099924
Sample Date		Client Info		06 Feb 2024	05 Jan 2024	19 Dec 2023
Machine Age	hrs	Client Info		16274	16123	15990
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ATTENTION	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>110	5	1	17
Chromium	ppm	ASTM D5185m	>4	<1	0	2
Nickel	ppm	ASTM D5185m	>2	2	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>25	5	1	2
Lead	ppm	ASTM D5185m	>45	0	0	0
Copper	ppm	ASTM D5185m	>85	3	<1	<1
Tin	ppm	ASTM D5185m	>4	1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Fuel content negligible. There is no indication of any contamination in the oil.

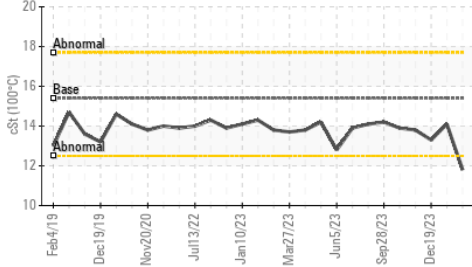
Silicon	ppm	ASTM D5185m	>30	3	3	5
Potassium	ppm	ASTM D5185m	>20	3	2	2
Fuel	%	ASTM D3524	>5	0.6	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	1.1
Nitration	Abs/cm	*ASTM D7624	>20	8.9	6.1	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	18.1	20.6
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

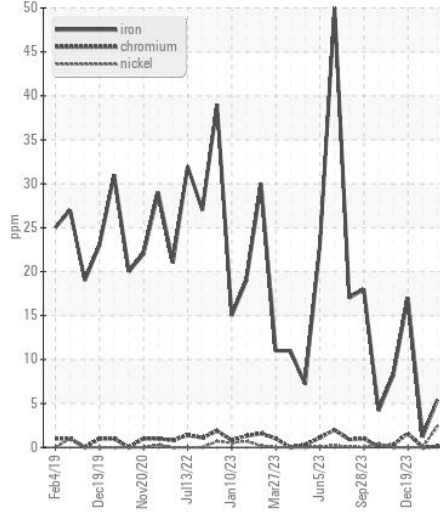
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		1	2	32
Boron	ppm	ASTM D5185m	0	55	6	34
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	60	16	56	51
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	1010	792	916	612
Calcium	ppm	ASTM D5185m	1070	1161	1062	1380
Phosphorus	ppm	ASTM D5185m	1150	718	1083	864
Zinc	ppm	ASTM D5185m	1270	835	1257	1016
Sulfur	ppm	ASTM D5185m	2060	2200	3123	2732
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.3	14.5	16.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.8	7.8	8.3	9.1
Visc @ 100°C	cSt	ASTM D445	15.4	▲ 11.8	14.1	13.3

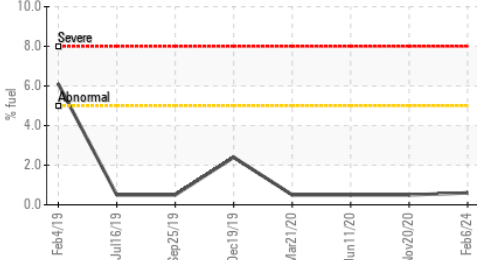
▲ Viscosity @ 100°C



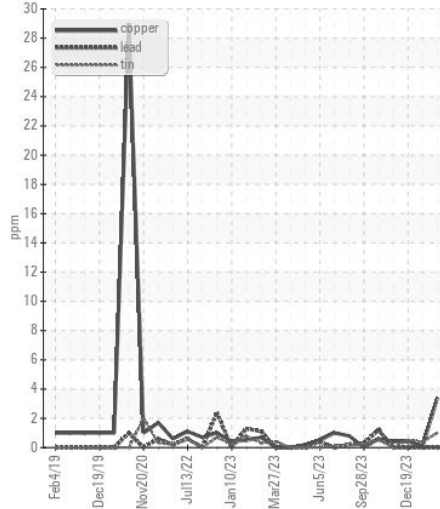
Ferrous Alloys



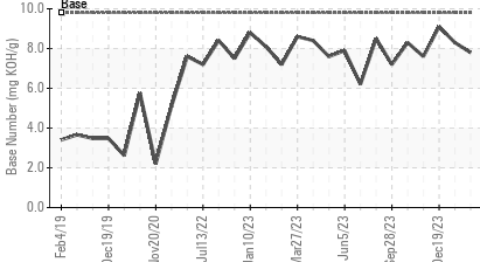
Fuel Dilution



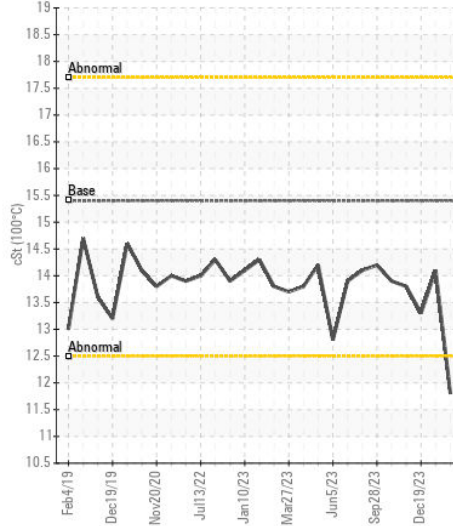
Non-ferrous Metals



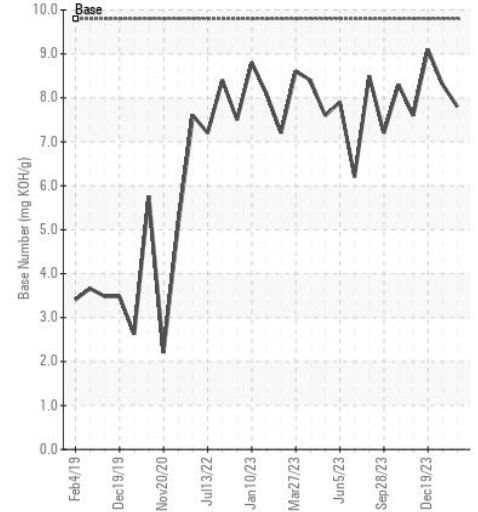
Base Number



▲ Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0109831

Lab Number : 06083286

Unique Number : 10870731

Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 08 Feb 2024

Tested : 09 Feb 2024

Diagnosed : 09 Feb 2024 - Don Baldrige

GFL Environmental - 836 - Kansas City Hauling

7801 East Truman Road

Kansas City, MO

US 64126

Contact: Loyce Stewart

loyce.stewart@gflenv.com

T:

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)