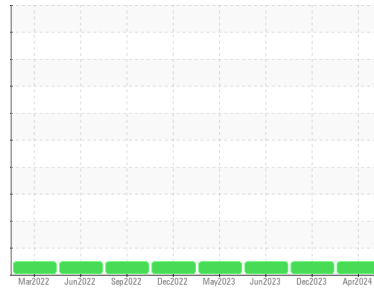




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
927059
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (10 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

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.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0095348	GFL0095374	GFL0076923
Sample Date	Client Info		16 Apr 2024	08 Dec 2023	14 Jun 2023
Machine Age	hrs	Client Info	16785	16194	15629
Oil Age	hrs	Client Info	591	572	124
Oil Changed	Client Info		Changed	Changed	Changed
Sample Status			NORMAL	NORMAL	NORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
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

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >120	11	12	5
Chromium	ppm	ASTM D5185m >20	<1	<1	<1
Nickel	ppm	ASTM D5185m >5	1	2	1
Titanium	ppm	ASTM D5185m >2	<1	0	0
Silver	ppm	ASTM D5185m >2	0	0	<1
Aluminum	ppm	ASTM D5185m >20	4	2	<1
Lead	ppm	ASTM D5185m >40	<1	0	2
Copper	ppm	ASTM D5185m >330	1	<1	<1
Tin	ppm	ASTM D5185m >15	<1	0	<1
Vanadium	ppm	ASTM D5185m	<1	<1	<1
Cadmium	ppm	ASTM D5185m	<1	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m 0	7	7	14
Barium	ppm	ASTM D5185m 0	<1	0	<1
Molybdenum	ppm	ASTM D5185m 60	59	61	58
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	958	1018	935
Calcium	ppm	ASTM D5185m 1070	1115	1158	1309
Phosphorus	ppm	ASTM D5185m 1150	992	1061	1061
Zinc	ppm	ASTM D5185m 1270	1266	1299	1329
Sulfur	ppm	ASTM D5185m 2060	2933	2982	3805

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >25	6	4	4
Sodium	ppm	ASTM D5185m	10	10	8
Potassium	ppm	ASTM D5185m >20	2	2	3

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844 >4	0.2	0.3	0.1
Nitration	Abs/cm	*ASTM D7624 >20	11.6	11.6	7.8
Sulfation	Abs/.1mm	*ASTM D7415 >30	25.1	25.6	20.7

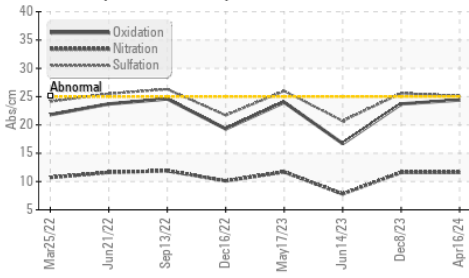
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	24.4	23.7	16.7
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	4.5	5.8	8.3

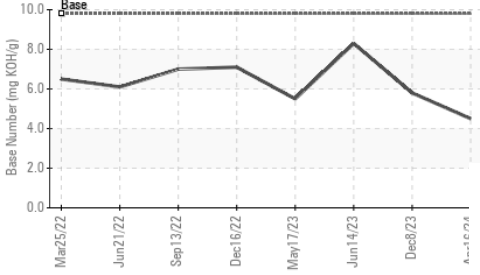


OIL ANALYSIS REPORT

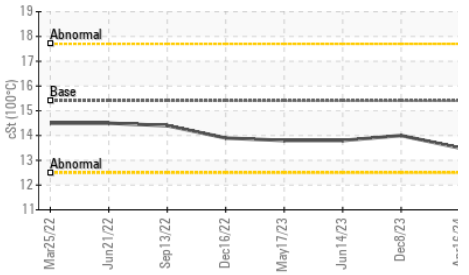
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C

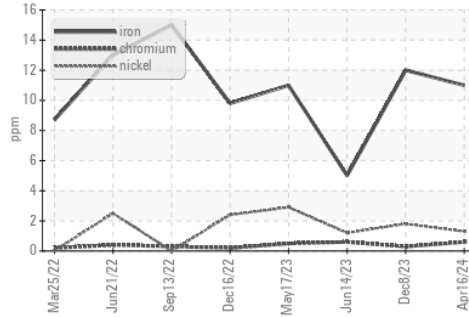


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

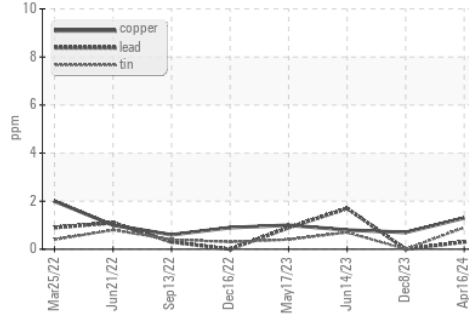
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	13.5	14.0

GRAPHS

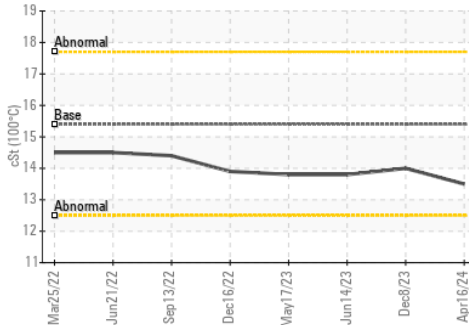
Ferrous Alloys



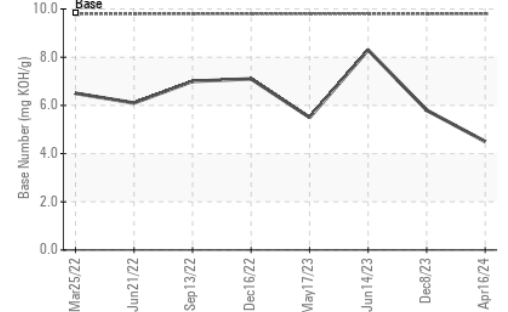
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0095348
 Lab Number : 06156626
 Unique Number : 10992049
 Test Package : FLEET

Received : 22 Apr 2024
 Tested : 23 Apr 2024
 Diagnosed : 23 Apr 2024 - Wes Davis

GFL Environmental - 930 - Mosinee HC
 1372 State Highway 34
 MOSINEE, WI
 US 54455
 Contact: Kirk Koss

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: (715)571-2784

F: