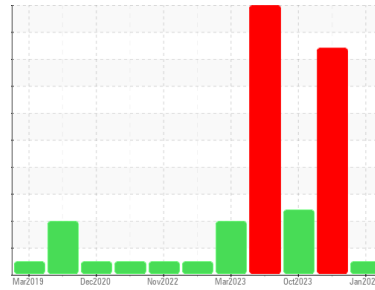




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
729050-361419

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Test for glycol is negative. 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	GFL0105168	GFL0090279	GFL0090156
Sample Date	Client Info	16 Jan 2024	31 Oct 2023	04 Oct 2023
Machine Age	hrs	20977	20919	20847
Oil Age	hrs	300	150	150
Oil Changed	Client Info	Not Changed	Not Changed	Not Changed
Sample Status		NORMAL	SEVERE	SEVERE

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method >5	<1.0	1.5	11.3
Water	WC Method >0.2	NEG	NEG	NEG

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >100	4	19	27
Chromium	ppm ASTM D5185m >20	<1	1	<1
Nickel	ppm ASTM D5185m >4	0	<1	0
Titanium	ppm ASTM D5185m	<1	0	0
Silver	ppm ASTM D5185m >3	0	<1	0
Aluminum	ppm ASTM D5185m >20	3	1	8
Lead	ppm ASTM D5185m >40	0	5	<1
Copper	ppm ASTM D5185m >330	<1	11	3
Tin	ppm ASTM D5185m >15	<1	<1	0
Vanadium	ppm ASTM D5185m	0	0	0
Cadmium	ppm ASTM D5185m	0	<1	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	<1	5	5
Barium	ppm ASTM D5185m 0	3	5	0
Molybdenum	ppm ASTM D5185m 60	58	122	51
Manganese	ppm ASTM D5185m 0	0	<1	<1
Magnesium	ppm ASTM D5185m 1010	928	787	780
Calcium	ppm ASTM D5185m 1070	1057	919	864
Phosphorus	ppm ASTM D5185m 1150	982	909	853
Zinc	ppm ASTM D5185m 1270	1212	1118	1054
Sulfur	ppm ASTM D5185m 2060	3456	2871	2932

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	4	5	8
Sodium	ppm ASTM D5185m	<1	502	39
Potassium	ppm ASTM D5185m >20	1	325	7
Glycol	% *ASTM D2982	0.0	0.10	NEG

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	0.2	0.5	0.9
Nitration	Abs/cm *ASTM D7624 >20	6.4	7.9	7.7
Sulfation	Abs/.1mm *ASTM D7415 >30	18.3	19.9	20.1

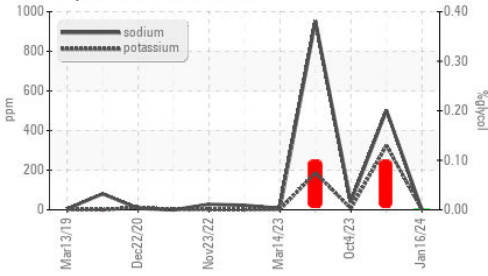
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	14.1	16.2	15.6
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.2	7.7	7.8

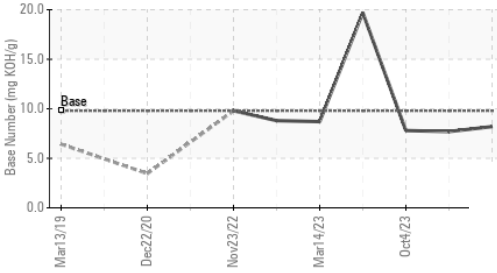


OIL ANALYSIS REPORT

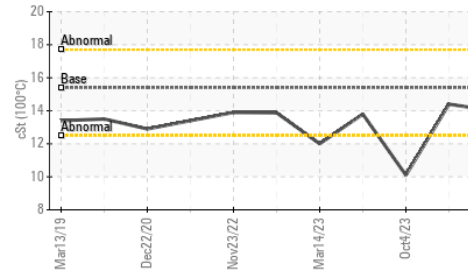
Glycol Contamination



Base Number



Viscosity @ 100°C

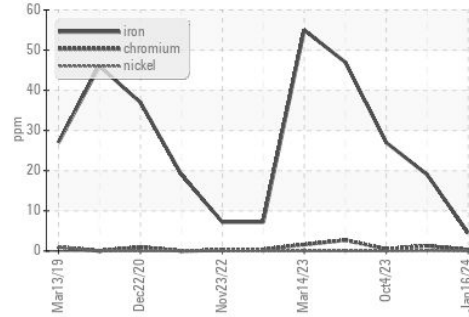


PARAMETER	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	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

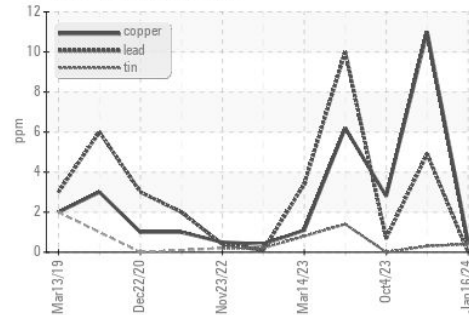
PARAMETER	method	limit/base	current	history1	history2
FLUID PROPERTIES					
Visc @ 100°C	cSt	ASTM D445	15.4	14.0	14.4 ▲ 10.1

GRAPHS

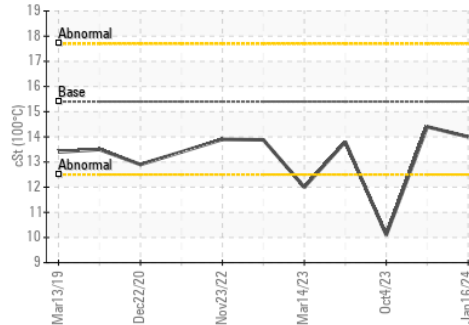
Ferrous Alloys



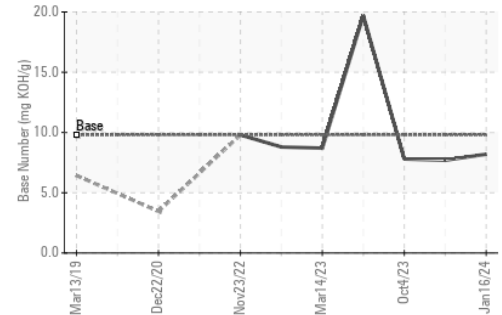
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0105168
 Lab Number : 06066539
 Unique Number : 10843216
 Test Package : FLEET

GFL Environmental - 821 - Ozarks Hauling
 33924 Olath Drive
 Lebanon, MO
 US 65536

Contact: Landen Johnson
 landen.johnson@gflenv.com
 T: (417)664-0010

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)

F: