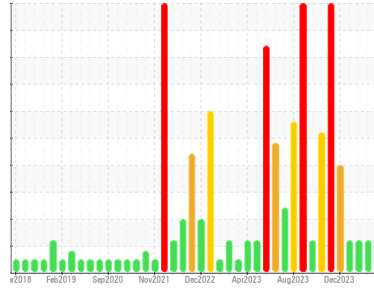




OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Area
(DUW950)

Machine Id
10630

Component
Diesel Engine

Fluid
PETRO CANADA DURON SHP 15W40 (7 GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels are high. Test for glycol is negative.

▲ 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	GFL0112304	GFL0109931	GFL0107236
Sample Date	Client Info	19 Feb 2024	08 Feb 2024	12 Jan 2024
Machine Age	hrs	6924	6836	6666
Oil Age	hrs	413	325	155
Oil Changed	Client Info	Changed	Not Changd	Not Changd
Sample Status		ATTENTION	ATTENTION	ATTENTION

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

WEAR METALS

method	limit/base	current	history1	history2
Iron	ppm ASTM D5185m >75	15	6	16
Chromium	ppm ASTM D5185m >5	1	<1	<1
Nickel	ppm ASTM D5185m >4	0	0	0
Titanium	ppm ASTM D5185m >2	<1	0	0
Silver	ppm ASTM D5185m >2	0	0	0
Aluminum	ppm ASTM D5185m >15	2	2	2
Lead	ppm ASTM D5185m >25	0	0	0
Copper	ppm ASTM D5185m >100	2	<1	<1
Tin	ppm ASTM D5185m >4	<1	0	0
Vanadium	ppm ASTM D5185m	<1	0	0
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m 0	15	21	6
Barium	ppm ASTM D5185m 0	0	0	3
Molybdenum	ppm ASTM D5185m 60	69	69	70
Manganese	ppm ASTM D5185m 0	<1	<1	0
Magnesium	ppm ASTM D5185m 1010	808	844	896
Calcium	ppm ASTM D5185m 1070	953	950	1007
Phosphorus	ppm ASTM D5185m 1150	920	975	948
Zinc	ppm ASTM D5185m 1270	1085	1131	1154
Sulfur	ppm ASTM D5185m 2060	2728	2795	3266

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >25	6	7	13
Sodium	ppm ASTM D5185m	▲ 331	▲ 277	▲ 392
Potassium	ppm ASTM D5185m >20	27	26	23
Glycol	% *ASTM D2982	NEG	NEG	0.0

INFRA-RED

method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >6	0.5	0.3	0.6
Nitration	Abs/cm *ASTM D7624 >20	7.2	6.0	7.0
Sulfation	Abs/.1mm *ASTM D7415 >30	18.7	17.4	18.7

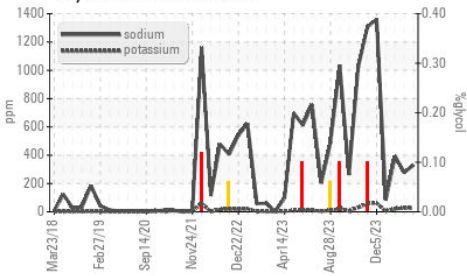
FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	13.4	12.4	12.8
Base Number (BN)	mg KOH/g ASTM D2896 9.8	8.7	9.0	8.8

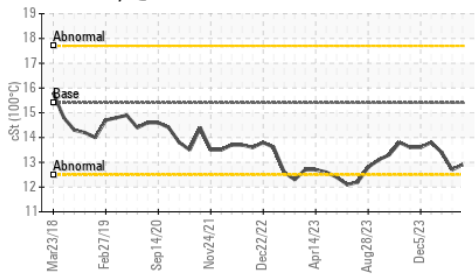


OIL ANALYSIS REPORT

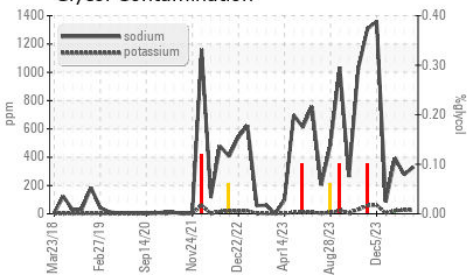
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

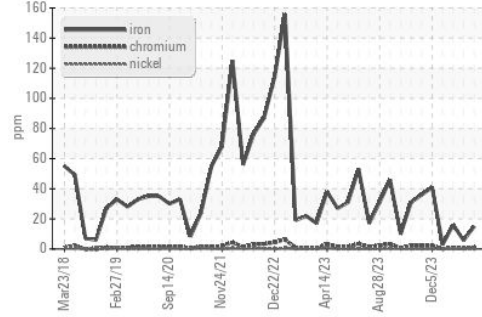


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

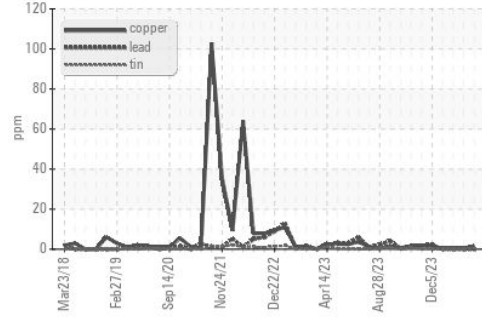
FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	15.4	12.9	12.7	13.4

GRAPHS

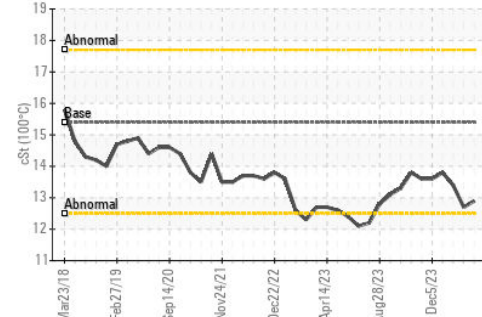
Ferrous Alloys



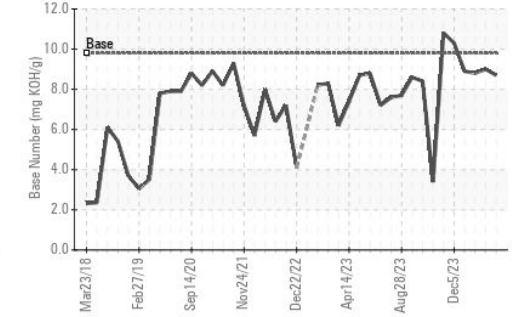
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0112304 **Received** : 22 Feb 2024
Lab Number : 06096718 **Tested** : 23 Feb 2024
Unique Number : 10889571 **Diagnosed** : 23 Feb 2024 - Sean Felton
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 010 - Stockbridge
 1280 Rum Creek Parkway
 Stockbridge, GA
 US 30281
 Contact: JOSHUA TINKER
 joshuatinker@gflenv.com

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)

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F: