

RECOMMENDED ACTIONS

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	Oil and filter change at the time of sampling has been noted.
Change Filter	---	---	?	Oil and filter change at the time of sampling has been noted.
Resample	---	---	?	We recommend an early resample to monitor this condition.

HISTORICAL DIAGNOSIS

26 Jul 2023 Diag: Don Baldrige

GLYCOL



No corrective action is recommended at this time. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is negative. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



10 Jul 2023 Diag: Jonathan Hester

GLYCOL



No corrective action is recommended at this time. We recommend an early resample to monitor this condition. All component wear rates are normal. Sodium and/or potassium levels are high. Test for glycol is negative. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

view report



20 Jun 2023 Diag: Don Baldrige

NORMAL



Resample at the next service interval to monitor. All component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

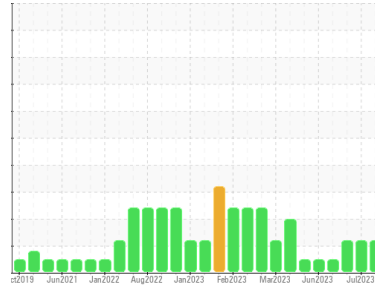
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OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
12036
 Component
Diesel Engine
 Fluid
PETRO CANADA DURON SHP 15W40 (32 QTS)

DIAGNOSIS

Recommendation

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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 acceptable for the time in service.

SAMPLE INFORMATION

method	limit/base	current	history1	history2
Sample Number	Client Info	GFL0069128	GFL0069171	GFL0068753
Sample Date	Client Info	14 Aug 2023	26 Jul 2023	10 Jul 2023
Machine Age	hrs	12796	12768	12650
Oil Age	hrs	941	913	795
Oil Changed	Client Info	Changed	Not Changd	Not Changd
Sample Status		ATTENTION	ATTENTION	ATTENTION

CONTAMINATION

method	limit/base	current	history1	history2
Fuel	WC Method	<1.0	<1.0	<1.0

WEAR METALS

method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m >75	16	13	11
Chromium	ppm	ASTM D5185m >5	<1	<1	<1
Nickel	ppm	ASTM D5185m >4	<1	0	0
Titanium	ppm	ASTM D5185m >2	<1	<1	<1
Silver	ppm	ASTM D5185m >2	<1	0	0
Aluminum	ppm	ASTM D5185m >15	3	4	3
Lead	ppm	ASTM D5185m >25	0	0	<1
Copper	ppm	ASTM D5185m >100	1	<1	1
Tin	ppm	ASTM D5185m >4	<1	0	<1
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	5	8	8
Barium	ppm	ASTM D5185m 0	0	2	0
Molybdenum	ppm	ASTM D5185m 60	69	69	67
Manganese	ppm	ASTM D5185m 0	<1	<1	<1
Magnesium	ppm	ASTM D5185m 1010	887	958	965
Calcium	ppm	ASTM D5185m 1070	1011	1080	1082
Phosphorus	ppm	ASTM D5185m 1150	915	1028	1046
Zinc	ppm	ASTM D5185m 1270	1125	1268	1303
Sulfur	ppm	ASTM D5185m 2060	3253	3665	3824

CONTAMINANTS

method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m >25	7	8	7
Sodium	ppm	ASTM D5185m	▲ 205	▲ 142	▲ 113
Potassium	ppm	ASTM D5185m >20	3	2	3
Glycol	%	*ASTM D2982	NEG	0.0	NEG

INFRA-RED

method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844 >6	0.6	0.5	0.4
Nitration	Abs/cm	*ASTM D7624 >20	10.9	9.3	8.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	20.5	19.5	19.8

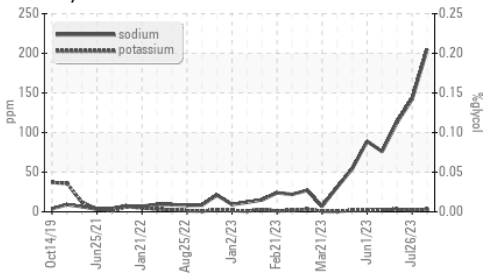
FLUID DEGRADATION

method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414 >25	17.6	16.5	15.9
Base Number (BN)	mg KOH/g	ASTM D2896 9.8	8.1	8.7	9.3

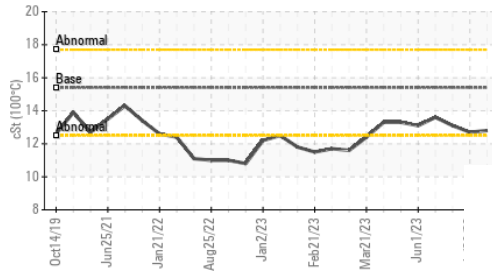


OIL ANALYSIS REPORT

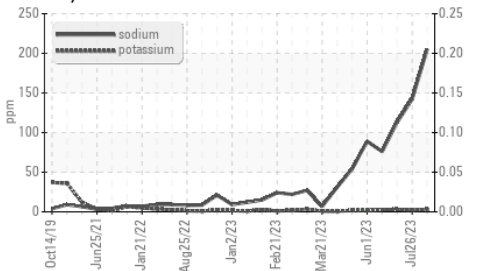
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

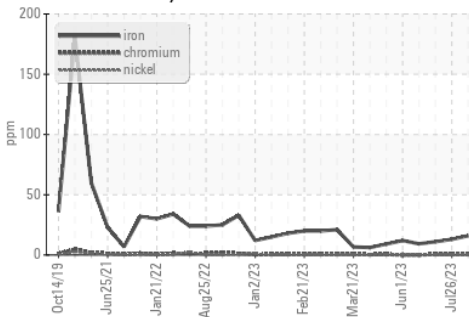


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance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

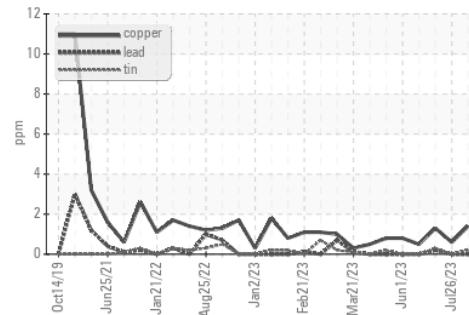
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.4	12.8	12.7

GRAPHS

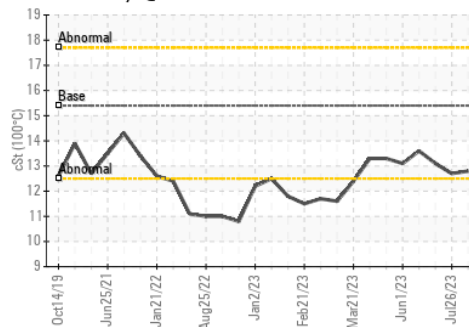
Ferrous Alloys



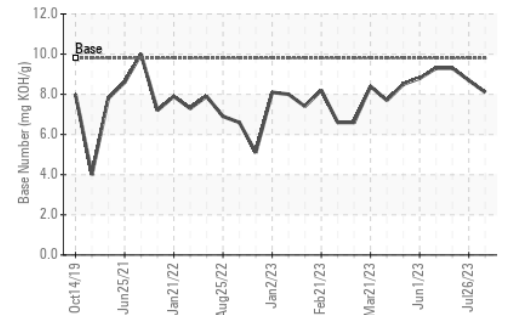
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
 Sample No. : GFL0069128
 Lab Number : 05928032
 Unique Number : 10607979
 Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 073 - Warner Robbins - Transwaste
 155 Story Road
 Warner Robbins, GA
 US 31093
 Contact: JOSH MALONEY
 jmaloney@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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