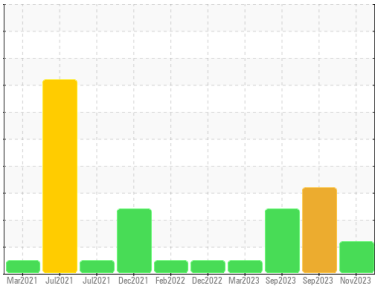
PROBLEM SUMMARY

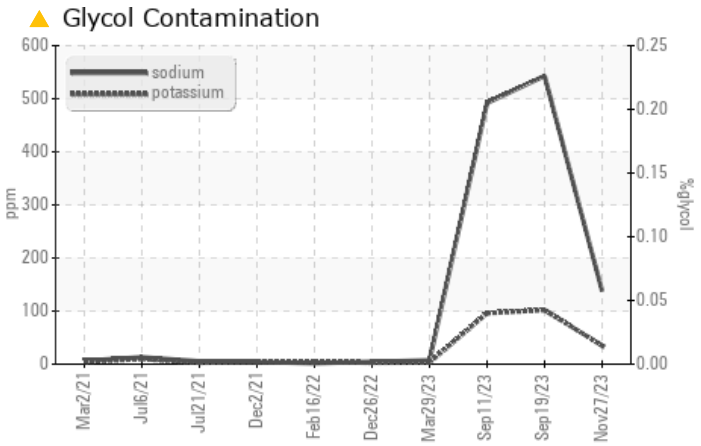
Sample Rating Trend



GLYCOL

Machine Id
728019-1146
Component
Diesel Engine
Fluid
CHEVRON DELO 400 XLE 15W40 (--- GAL)

COMPONENT CONDITION SUMMARY



RECOMMENDATION

No corrective action is recommended at this time.
Resample at the next service interval to monitor.

PROBLEMATIC TEST RESULTS

Sample Status				**ATTENTION**	ABNORMAL	ABNORMAL
Sodium	ppm	ASTM D5185m		▲ **138**	▲ 543	▲ 492

Customer Id: GFL624
Sample No.: GFL0096260
Lab Number: 06025503
Test Package: FLEET

To manage this report scan the QR code

To discuss the diagnosis or test data:
Jonathan Hester +1 919-379-4092 x4092
jhester@wearcheckusa.com

To change component or sample information:
Customer Service +1 1-800-237-1369
customerservice@wearcheck.com

RECOMMENDED ACTIONS

There are no recommended actions for this sample.

HISTORICAL DIAGNOSIS

19 Sep 2023 Diag: Jonathan Hester

GLYCOL

We advise that you check for the source of the coolant leak. Check for low coolant level. Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.Cylinder, crank, or cam shaft wear is indicated. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

11 Sep 2023 Diag: Jonathan Hester

GLYCOL

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend an early resample to monitor this condition.All component wear rates are normal. Sodium and/or potassium levels are high. The BN result indicates that there is suitable alkalinity remaining in the oil.

view report

29 Mar 2023 Diag: Don Baldridge

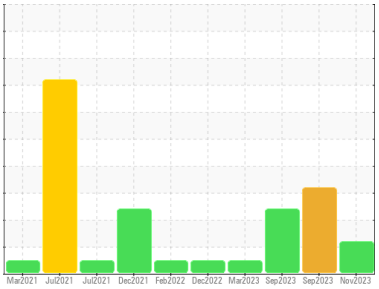
NORMAL

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.

view report

OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL

Machine Id
728019-1146
Component
Diesel Engine
Fluid
CHEVRON DELO 400 XLE 15W40 (--- GAL)

DIAGNOSIS

▲ Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

Sodium and/or potassium levels remain 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		**GFL0096260**	GFL0055605	GFL0055612
Sample Date		Client Info		**27 Nov 2023**	19 Sep 2023	11 Sep 2023
Machine Age	hrs	Client Info		**4176**	4176	4176
Oil Age	hrs	Client Info		**482**	578	426
Oil Changed		Client Info		**Not Changd**	Changed	Not Changd
Sample Status				**ATTENTION**	ABNORMAL	ABNORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel		WC Method	>5	**<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	>80	**41**	▲ 90	66
Chromium	ppm	ASTM D5185m	>5	**<1**	3	2
Nickel	ppm	ASTM D5185m	>2	**0**	2	1
Titanium	ppm	ASTM D5185m		**5**	3	4
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>30	**13**	18	16
Lead	ppm	ASTM D5185m	>30	**0**	1	<1
Copper	ppm	ASTM D5185m	>150	**6**	20	21
Tin	ppm	ASTM D5185m	>5	**0**	<1	<1
Vanadium	ppm	ASTM D5185m		**0**	<1	<1
Cadmium	ppm	ASTM D5185m		**0**	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m		**129**	19	21
Barium	ppm	ASTM D5185m		**2**	0	0
Molybdenum	ppm	ASTM D5185m		**88**	77	78
Manganese	ppm	ASTM D5185m		**0**	2	3
Magnesium	ppm	ASTM D5185m		**582**	461	469
Calcium	ppm	ASTM D5185m		**1470**	1936	1966
Phosphorus	ppm	ASTM D5185m	760	**657**	717	705
Zinc	ppm	ASTM D5185m	830	**787**	929	916
Sulfur	ppm	ASTM D5185m	2770	**2818**	3749	3686

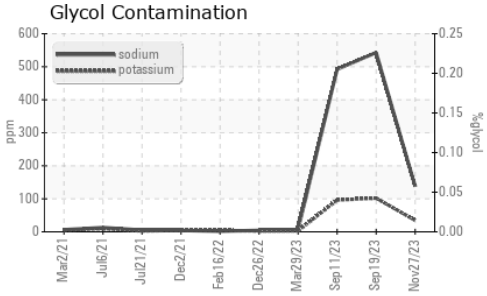
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>20	**14**	19	19
Sodium	ppm	ASTM D5185m		▲ **138**	▲ 543	▲ 492
Potassium	ppm	ASTM D5185m	>20	**35**	▲ 102	▲ 96
Glycol	%	*ASTM D2982		**NEG**	NEG	NEG

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	**0.7**	1.2	1
Nitration	Abs/cm	*ASTM D7624	>20	**12.1**	14.9	14.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	**23.7**	26.3	23.7

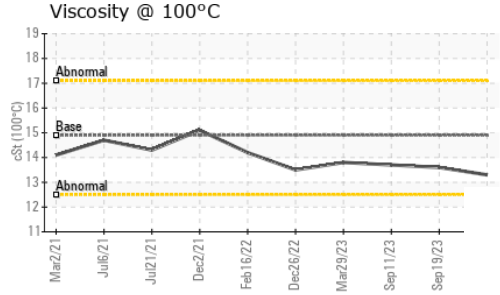
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	**20.6**	24.3	20.8
Base Number (BN)	mg KOH/g	ASTM D2896	10.7	**7.5**	6.2	6.6

OIL ANALYSIS REPORT

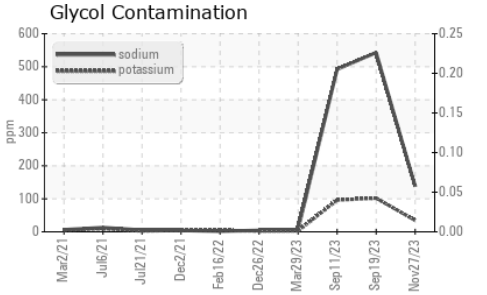
Glycol Contamination



Viscosity @ 100°C



Glycol Contamination

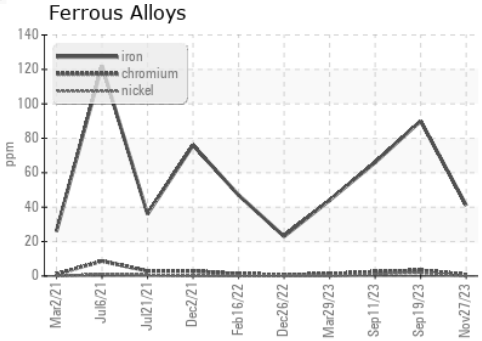


VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Precipitate	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silt	scalar	*Visual	NONE	**NONE**	NONE	NONE
Debris	scalar	*Visual	NONE	**NONE**	NONE	NONE
Sand/Dirt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

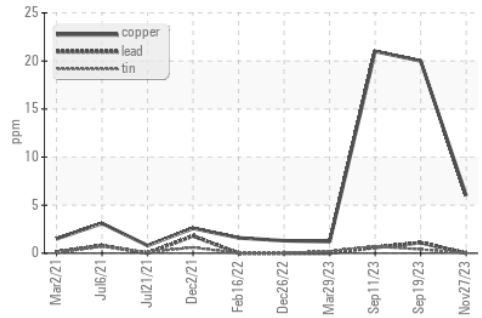
FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.9	**13.3**	13.6	13.7

GRAPHS

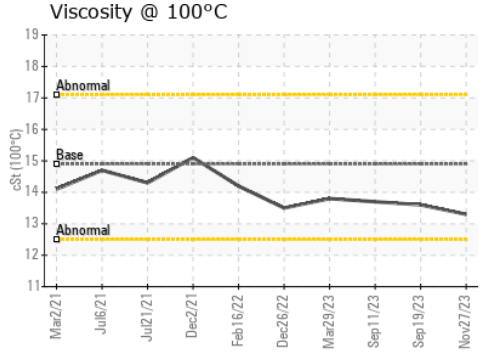
Ferrous Alloys



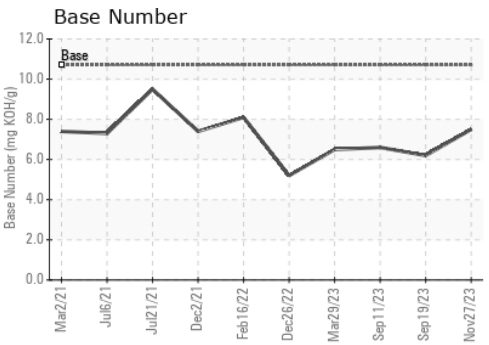
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0096260
Lab Number : 06025503
Unique Number : 10770003
Test Package : FLEET (Additional Tests: Glycol)

Received : 05 Dec 2023
Diagnosed : 07 Dec 2023
Diagnostician : Jonathan Hester

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)

GFL Environmental - 624 - Elmira Hauling
10164 M-32
Elmira, MI
US 49730
Contact: ANDY GROBASKI
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Report Id: GFL624 [WUSCAR] 06025503 (Generated: 12/08/2023 05:42:44) Rev: 1

Submitted By: KEITH CAMPBELL