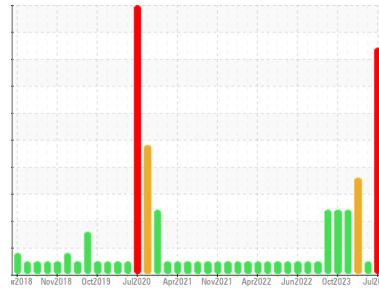




PROBLEM SUMMARY

Machine Id
3789C AUTOCAR ACX
 Component
Natural Gas Engine
 Fluid
CHEVRON DELO 400 NG (48 QTS)

Sample Rating Trend

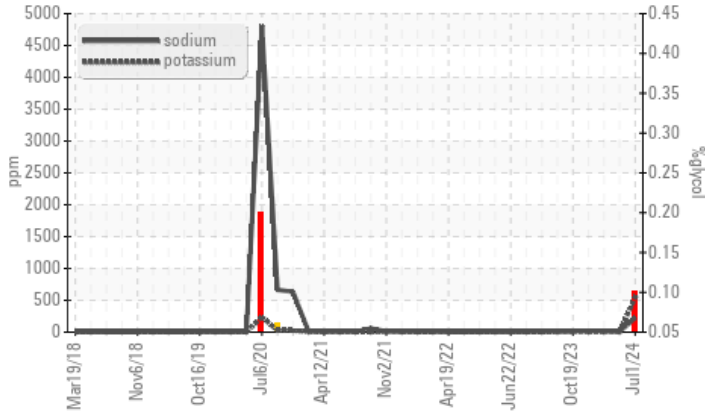


GLYCOL



COMPONENT CONDITION SUMMARY

▲ Glycol Contamination



RECOMMENDATION

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

PROBLEMATIC TEST RESULTS

Sample Status				SEVERE	NORMAL	ABNORMAL
Sodium	ppm	ASTM D5185m		▲ 221	7	20
Potassium	ppm	ASTM D5185m	>20	▲ 529	4	4
Glycol	%	*ASTM D2982		▲ 0.10	---	---

Customer Id: GFL001
 Sample No.: GFL0117412
 Lab Number: 06227093
 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

Action	Status	Date	Done By	Description
Change Fluid	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Change Filter	---	---	?	We recommend that you drain the oil and perform a filter service on this component if not already done.
Resample	---	---	?	We recommend an early resample to monitor this condition.
Check Glycol Access	---	---	?	We advise that you check for the source of the coolant leak.

HISTORICAL DIAGNOSIS

NORMAL



23 Jan 2024 Diag: Wes Davis

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



DEGRADATION



24 Oct 2023 Diag: Don Baldrige

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Cylinder, crank, or cam shaft wear is indicated. There is no indication of any contamination in the oil. The BN level is low. The condition of the oil is acceptable for the time in service.

view report



WEAR



20 Oct 2023 Diag: Don Baldrige

The oil change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor. Cylinder, crank, or cam shaft wear is indicated. 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 acceptable for the time in service.

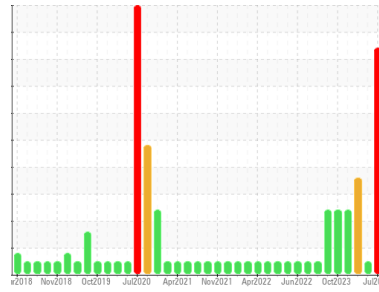
view report





OIL ANALYSIS REPORT

Sample Rating Trend



GLYCOL



Machine Id
3789C AUTOCAR ACX
 Component
Natural Gas Engine
 Fluid
CHEVRON DELO 400 NG (48 QTS)

DIAGNOSIS

▲ Recommendation

We advise that you check for the source of the coolant leak. Check for low coolant level. We recommend that you drain the oil and perform a filter service on this component if not already done. 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 positive.

▲ Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil.

SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		GFL0117412	GFL0103162	GFL0094680
Sample Date	Client Info		01 Jul 2024	23 Jan 2024	24 Oct 2023
Machine Age	hrs	Client Info	37280	36114	26803
Oil Age	hrs	Client Info	1166	9311	0
Oil Changed	Client Info		Not Chngd	Changed	Changed
Sample Status			SEVERE	NORMAL	ABNORMAL

CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.1	NEG	NEG	NEG

WEAR METALS

	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m >50	40	30	▲ 66
Chromium	ppm	ASTM D5185m >4	5	3	▲ 8
Nickel	ppm	ASTM D5185m >2	<1	<1	2
Titanium	ppm	ASTM D5185m	0	<1	<1
Silver	ppm	ASTM D5185m >3	0	0	0
Aluminum	ppm	ASTM D5185m >9	8	2	▲ 10
Lead	ppm	ASTM D5185m >30	2	1	9
Copper	ppm	ASTM D5185m >35	<1	1	2
Tin	ppm	ASTM D5185m >4	<1	<1	<1
Vanadium	ppm	ASTM D5185m	0	0	0
Cadmium	ppm	ASTM D5185m	0	0	<1

ADDITIVES

	method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	6	6	5
Barium	ppm	ASTM D5185m	0	0	3
Molybdenum	ppm	ASTM D5185m	70	58	67
Manganese	ppm	ASTM D5185m	<1	<1	2
Magnesium	ppm	ASTM D5185m	584	543	655
Calcium	ppm	ASTM D5185m	1641	1514	1740
Phosphorus	ppm	ASTM D5185m 800	707	663	928
Zinc	ppm	ASTM D5185m 880	976	975	1104
Sulfur	ppm	ASTM D5185m	2101	2317	2887

CONTAMINANTS

	method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m >+100	22	20	23
Sodium	ppm	ASTM D5185m	▲ 221	7	20
Potassium	ppm	ASTM D5185m >20	▲ 529	4	4
Glycol	%	*ASTM D2982	▲ 0.10	---	---

INFRA-RED

	method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	0	0	0
Nitration	Abs/cm	*ASTM D7624 >20	13.3	11.2	12.7
Sulfation	Abs/.1mm	*ASTM D7415 >30	26.3	22.3	29.6

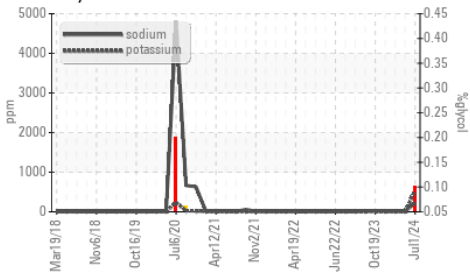
FLUID DEGRADATION

	method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414 >25	22.5	18.8	26.3
Base Number (BN)	mg KOH/g	ASTM D2896 6.1	3.5	4.0	▲ 1.1

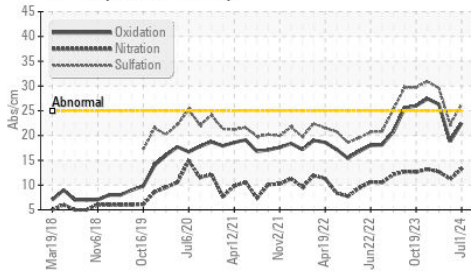


OIL ANALYSIS REPORT

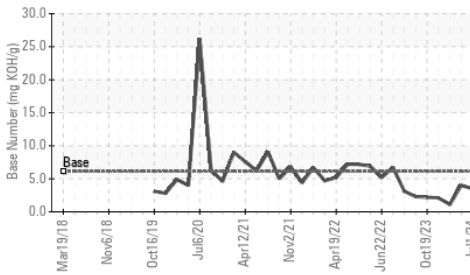
Glycol Contamination



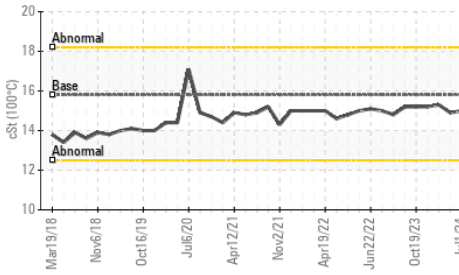
FT-IR (Direct Trend)



Base Number



Viscosity @ 100°C



VISUAL

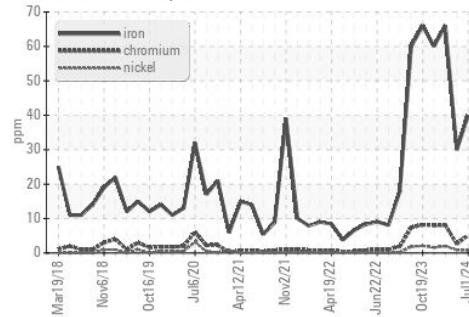
	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES

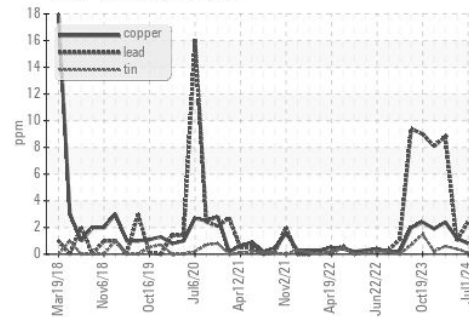
	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15.8	15.0	14.9

GRAPHS

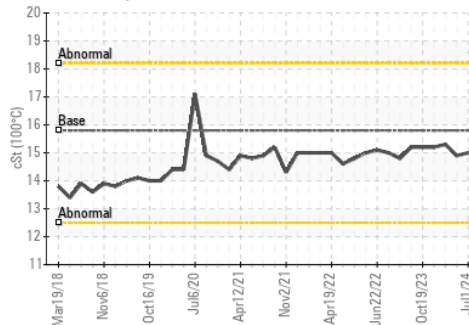
Ferrous Alloys



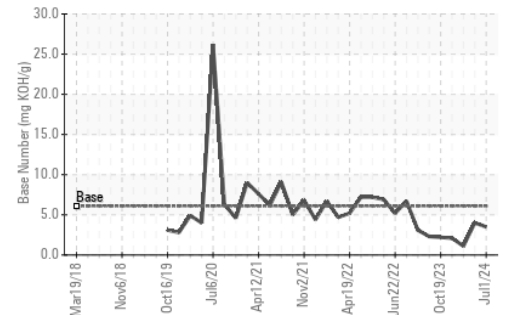
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : GFL0117412

Lab Number : 06227093

Unique Number : 11110586

Test Package : FLEET (Additional Tests: Glycol)

Received : 03 Jul 2024

Tested : 05 Jul 2024

Diagnosed : 05 Jul 2024 - Jonathan Hester

GFL Environmental - 001 - Raleigh(CNG)

3741 Conquest Drive

Garner, NC

US 27529

Contact: Craig Johnson

craig.johnson@gflenv.com

T: (919)662-7100

F: (919)662-7130

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)