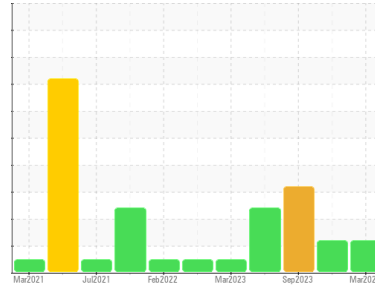




OIL ANALYSIS REPORT

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	GFL0104603	GFL0096260	GFL0055605	
Sample Date	Client Info	08 Mar 2024	27 Nov 2023	19 Sep 2023	
Machine Age	hrs	Client Info	16195	4176	4176
Oil Age	hrs	Client Info	0	482	578
Oil Changed	Client Info	Not Chngd	Not Chngd	Changed	
Sample Status		ATTENTION	ATTENTION	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	71	41	▲ 90
Chromium	ppm ASTM D5185m >5	2	<1	3
Nickel	ppm ASTM D5185m >2	<1	0	2
Titanium	ppm ASTM D5185m	6	5	3
Silver	ppm ASTM D5185m >3	0	0	0
Aluminum	ppm ASTM D5185m >30	22	13	18
Lead	ppm ASTM D5185m >30	0	0	1
Copper	ppm ASTM D5185m >150	6	6	20
Tin	ppm ASTM D5185m >5	<1	0	<1
Vanadium	ppm ASTM D5185m	0	0	<1
Cadmium	ppm ASTM D5185m	0	0	0

ADDITIVES

method	limit/base	current	history1	history2
Boron	ppm ASTM D5185m	90	129	19
Barium	ppm ASTM D5185m	0	2	0
Molybdenum	ppm ASTM D5185m	80	88	77
Manganese	ppm ASTM D5185m	1	0	2
Magnesium	ppm ASTM D5185m	644	582	461
Calcium	ppm ASTM D5185m	1602	1470	1936
Phosphorus	ppm ASTM D5185m 760	801	657	717
Zinc	ppm ASTM D5185m 830	930	787	929
Sulfur	ppm ASTM D5185m 2770	3209	2818	3749

CONTAMINANTS

method	limit/base	current	history1	history2
Silicon	ppm ASTM D5185m >20	12	14	19
Sodium	ppm ASTM D5185m	● 108	● 138	▲ 543
Potassium	ppm ASTM D5185m >20	35	35	▲ 102
Glycol	% *ASTM D2982	NEG	NEG	NEG

INFRA-RED

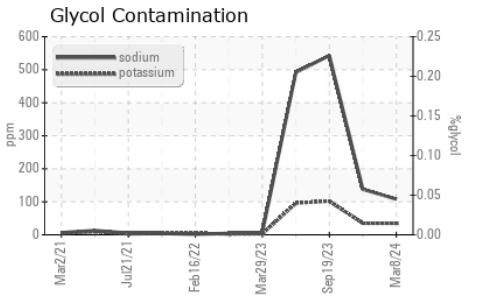
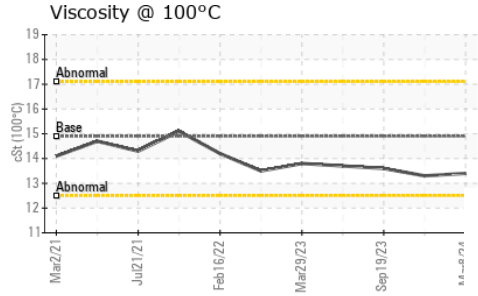
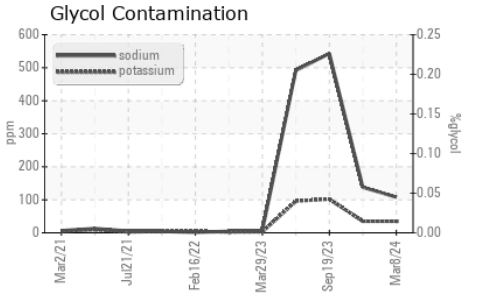
method	limit/base	current	history1	history2
Soot %	% *ASTM D7844 >3	1	0.7	1.2
Nitration	Abs/cm *ASTM D7624 >20	15.3	12.1	14.9
Sulfation	Abs/.1mm *ASTM D7415 >30	27.4	23.7	26.3

FLUID DEGRADATION

method	limit/base	current	history1	history2
Oxidation	Abs/.1mm *ASTM D7414 >25	27.0	20.6	24.3
Base Number (BN)	mg KOH/g ASTM D2896 10.7	6.3	7.5	6.2



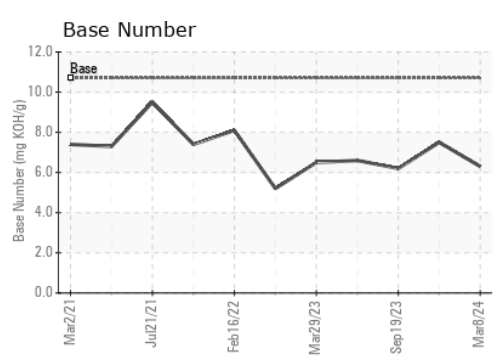
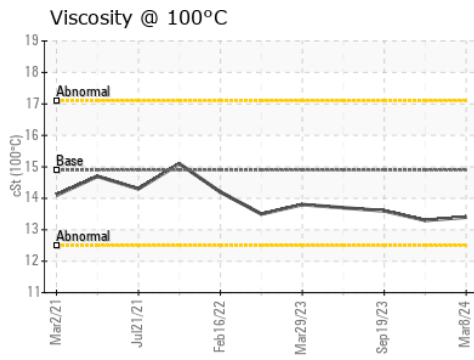
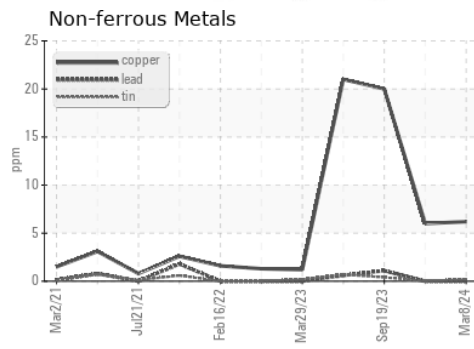
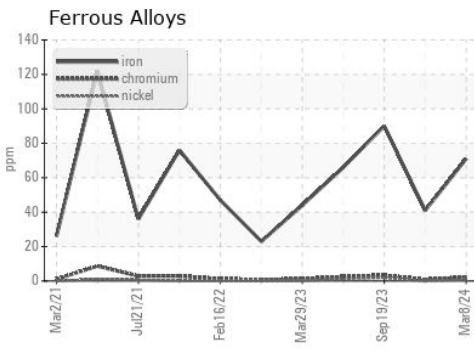
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.9	13.4	13.3

GRAPHS



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0104603
Lab Number : 06116381
Unique Number : 10925214
Test Package : FLEET (Additional Tests: Glycol)
Received : 12 Mar 2024
Tested : 14 Mar 2024
Diagnosed : 14 Mar 2024 - Jonathan Hester

GFL Environmental - 624 - Elmira Hauling
 10164 M-32
 Elmira, MI
 US 49730
 Contact: ANDY GROBASKI
 andyg@americanwaste.org
 T: (989)370-2941

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)