



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
928052-172553
Component
Diesel Engine
Fluid
CHEVRON DELO 400 MULTIGRADE 15W40 (--- LTR)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0115773	GFL0115793	GFL0115785
Sample Date		Client Info		21 Jun 2024	31 May 2024	13 May 2024
Machine Age	hrs	Client Info		18929	18770	18649
Oil Age	hrs	Client Info		536	377	256
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Filter Changed		Client Info		N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	12	11	10
Chromium	ppm	ASTM D5185m	>20	<1	<1	3
Nickel	ppm	ASTM D5185m	>5	0	<1	2
Titanium	ppm	ASTM D5185m	>2	<1	<1	2
Silver	ppm	ASTM D5185m	>2	0	0	3
Aluminum	ppm	ASTM D5185m	>20	3	3	5
Lead	ppm	ASTM D5185m	>40	0	0	3
Copper	ppm	ASTM D5185m	>330	1	21	3
Tin	ppm	ASTM D5185m	>15	0	<1	3
Vanadium	ppm	ASTM D5185m		<1	0	2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

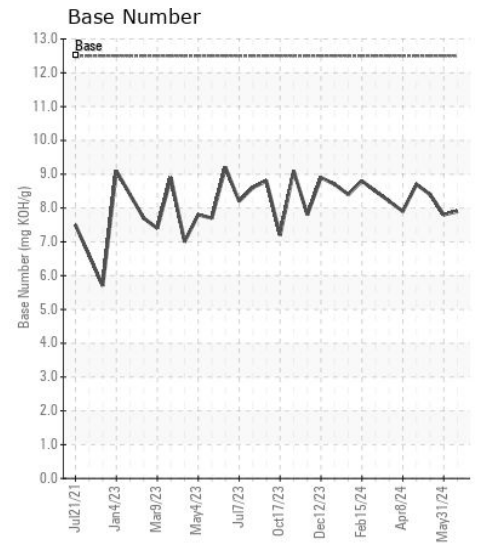
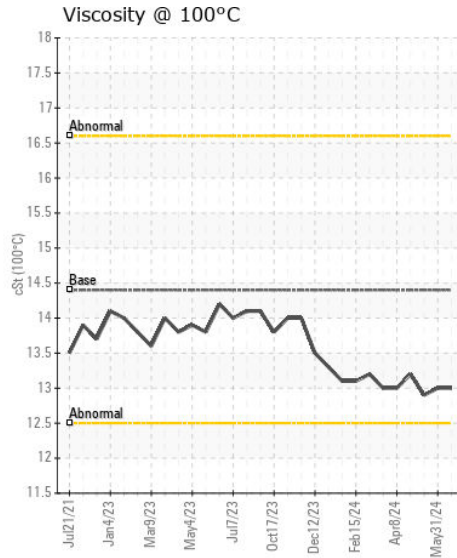
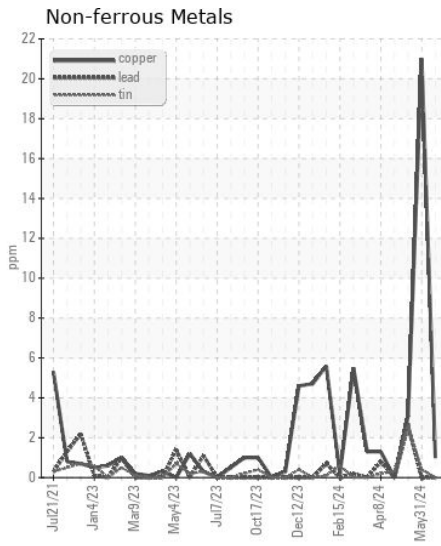
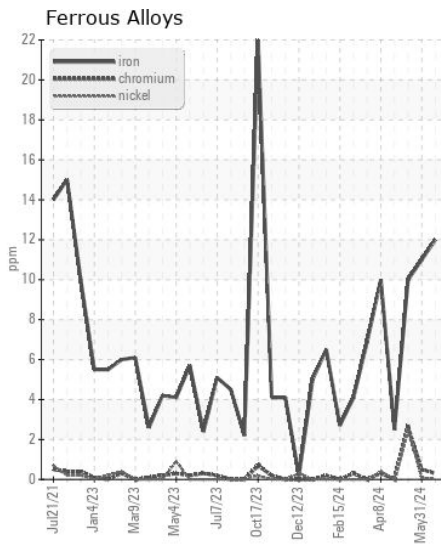
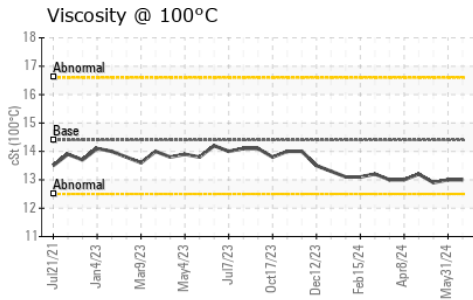
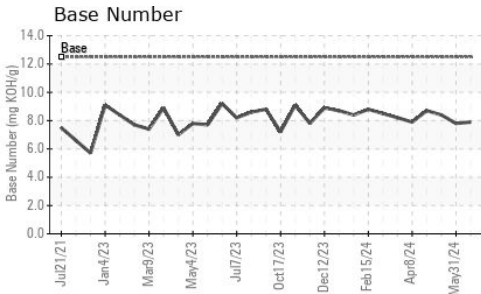
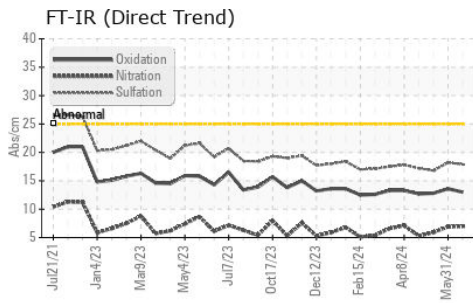
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	6	7
Potassium	ppm	ASTM D5185m	>20	2	4	4
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.5	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.0	6.9	5.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	17.9	18.2	16.8
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

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.

Sodium	ppm	ASTM D5185m		5	4	5
Boron	ppm	ASTM D5185m	151	15	14	21
Barium	ppm	ASTM D5185m	0.4	0	0	1
Molybdenum	ppm	ASTM D5185m	250	84	77	71
Manganese	ppm	ASTM D5185m		<1	<1	3
Magnesium	ppm	ASTM D5185m	0	1089	866	817
Calcium	ppm	ASTM D5185m	2046	1378	1130	1076
Phosphorus	ppm	ASTM D5185m	1043	1180	832	929
Zinc	ppm	ASTM D5185m	943	1464	1097	1091
Sulfur	ppm	ASTM D5185m	5012	4238	2659	3212
Oxidation	Abs/.1mm	*ASTM D7414	>25	13.0	13.6	12.8
Base Number (BN)	mg KOH/g	ASTM D2896	12.5	7.9	7.8	8.4
Visc @ 100°C	cSt	ASTM D445	14.4	13.0	13.0	12.9



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0115773
Lab Number : 06223203
Unique Number : 11101400
Test Package : FLEET

Received : 28 Jun 2024
Tested : 28 Jun 2024
Diagnosed : 30 Jun 2024 - Don Baldrige

GFL Environmental - 180 - Tuscaloosa Hauling
 4701 12TH ST NE
 Tuscaloosa, AL
 US 35404

Contact: FREDERICK ROGERS
 fred.rogers@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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