



Area
(P7771H)
Machine Id
713008
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

We advise that you check for the source of the coolant leak. The oil change at the time of sampling has been noted. We recommend an early resample to monitor this condition. Please specify the brand, type, and viscosity of the oil on your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		GFL0119116	GFL0115467	GFL0094248
Sample Date		Client Info		19 Jun 2024	01 Mar 2024	25 Nov 2023
Machine Age	hrs	Client Info		3064	2210	1700
Oil Age	hrs	Client Info		3064	510	676
Filter Age	hrs	Client Info		3064	510	676
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				SEVERE	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>120	9	18	2
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>5	0	0	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	<1	1
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	10	0	<1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

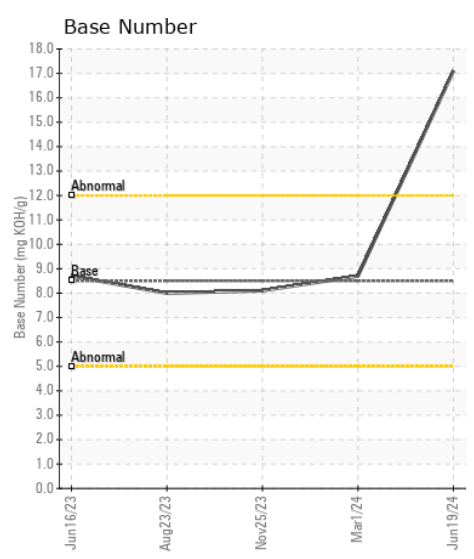
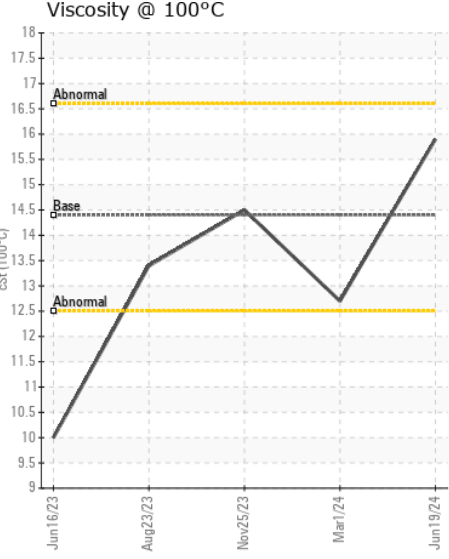
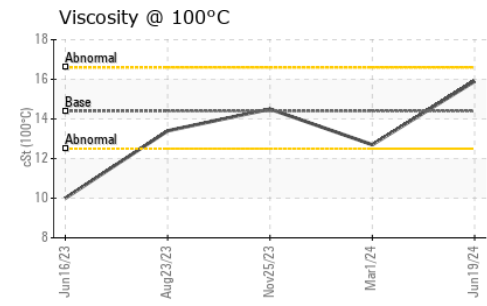
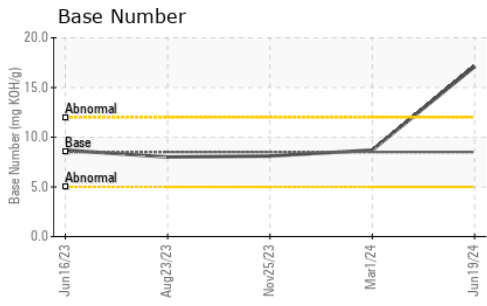
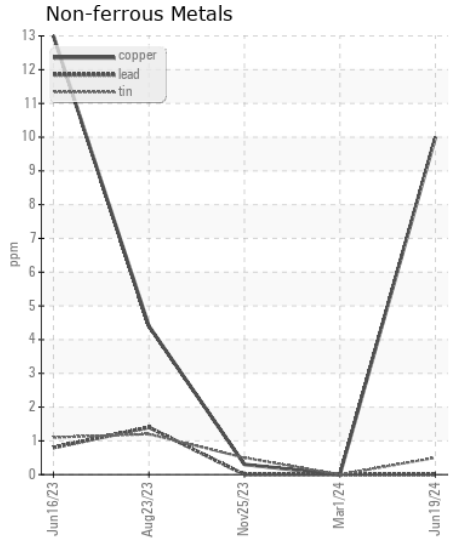
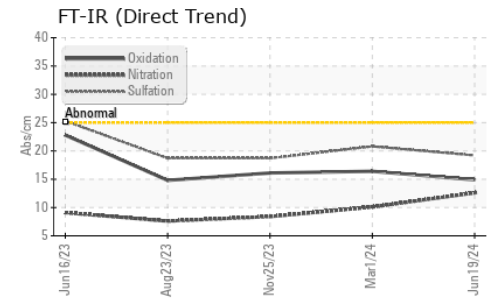
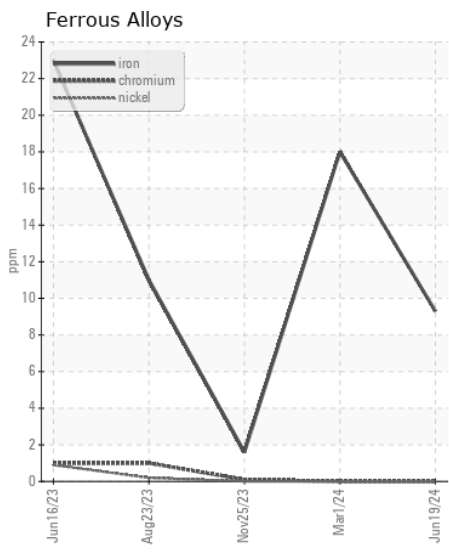
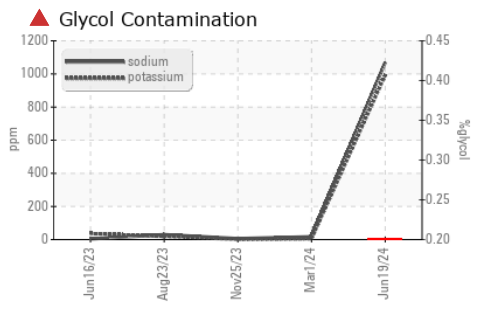
Test for glycol is positive. There is a high concentration of glycol present in the oil.

Silicon	ppm	ASTM D5185m	>25	8	2	2
Potassium	ppm	ASTM D5185m	>20	▲ 993	6	2
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		▲ 0.20	NEG	NEG
Soot %	%	*ASTM D7844	>4	0.3	1.4	0
Nitration	Abs/cm	*ASTM D7624	>20	12.6	10.1	8.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	20.8	18.7
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 oil is no longer serviceable due to the presence of contaminants.

Sodium	ppm	ASTM D5185m	>216	● 1070	17	6
Boron	ppm	ASTM D5185m	250	5	2	23
Barium	ppm	ASTM D5185m	10	0	2	0
Molybdenum	ppm	ASTM D5185m	100	118	57	46
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	857	879	552
Calcium	ppm	ASTM D5185m	3000	1012	1007	1410
Phosphorus	ppm	ASTM D5185m	1150	1032	1013	761
Zinc	ppm	ASTM D5185m	1350	1173	1181	919
Sulfur	ppm	ASTM D5185m	4250	3417	2668	2331
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.9	16.4	16.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	17.1	8.7	8.1
Visc @ 100°C	cSt	ASTM D445	14.4	15.9	12.7	14.5



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : GFL0119116 **Received** : 21 Jun 2024
Lab Number : 06216664 **Tested** : 24 Jun 2024
Unique Number : 11089528 **Diagnosed** : 24 Jun 2024 - Wes Davis
Test Package : FLEET (Additional Tests: Glycol)

GFL Environmental - 882 - Gainesville
 5002 SW 41st Blvd
 Gainesville, FL
 US 32608
 Contact: ROBERT CLARK
 robert.clark@gflenv.com

Certificate L2367
 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)