



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ABNORMAL

Machine Id
DFGS273215
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0869017	WC0614744	WCMFB73385
Sample Date		Client Info		26 Dec 2023	12 Oct 2021	24 Jul 2017
Machine Age	hrs	Client Info		12430	9317	0
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		N/A	Changed	N/A
Filter Changed		Client Info		N/A	Changed	N/A
Sample Status				ABNORMAL	ABNORMAL	MARGINAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	14	23	21
Chromium	ppm	ASTM D5185m	>20	1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		<1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	5	7
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	1	2	8
Tin	ppm	ASTM D5185m	>15	<1	0	0
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

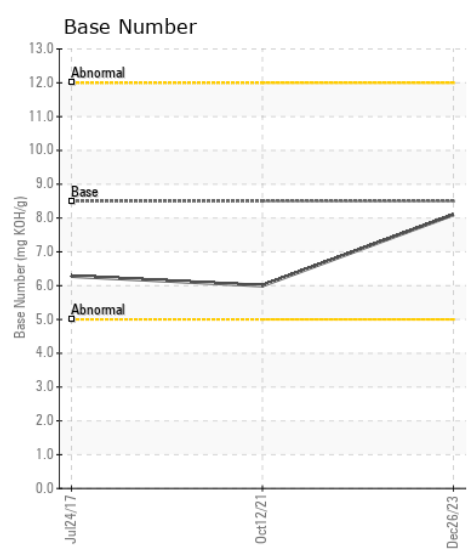
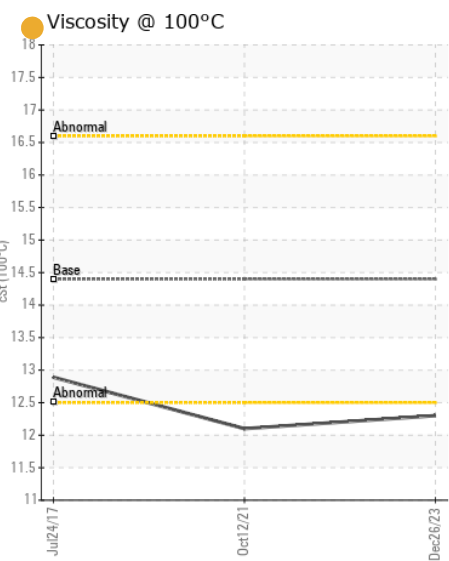
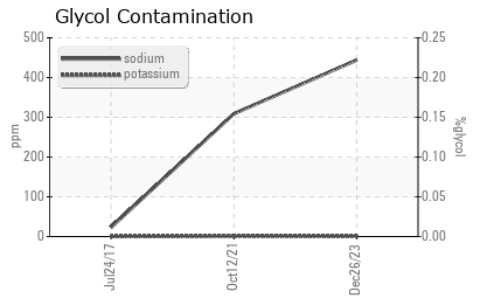
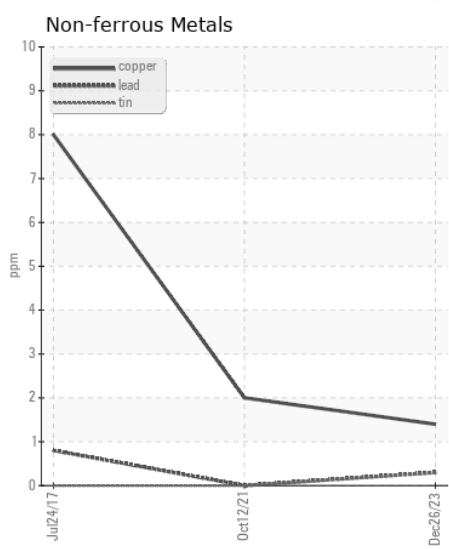
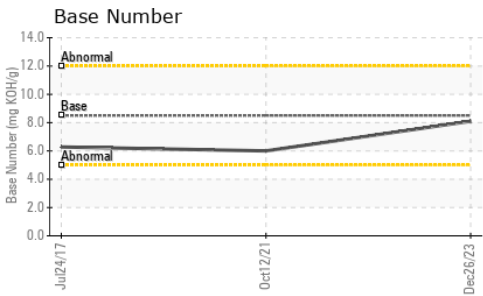
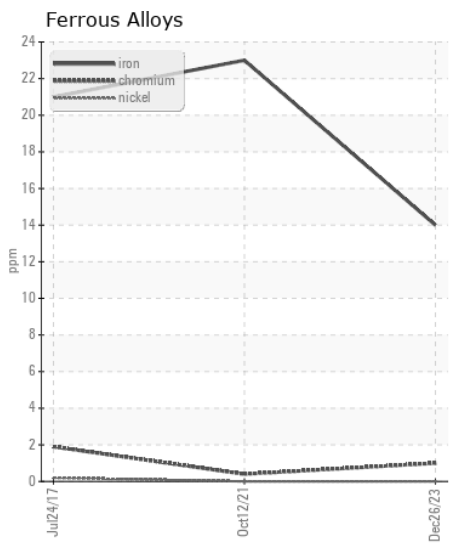
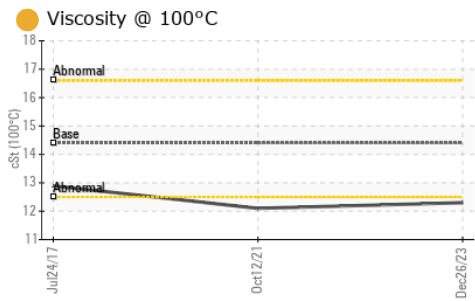
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>25	5	5	6
Potassium	ppm	ASTM D5185m	>20	<1	1	0
Fuel		WC Method	>5	<1.0	▲ 3.3	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.2	0.2	0.1
Nitration	Abs/cm	*ASTM D7624	>20	8.6	10.3	8.
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.6	21.8	21.
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>158	▲ 444	▲ 309	23
Boron	ppm	ASTM D5185m	250	339	327	380
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	73	128	86
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	309	452	334
Calcium	ppm	ASTM D5185m	3000	1692	1394	1405
Phosphorus	ppm	ASTM D5185m	1150	905	548	933
Zinc	ppm	ASTM D5185m	1350	1094	845	1122
Sulfur	ppm	ASTM D5185m	4250	2874	1982	2811
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.2	21.3	14.
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.1	6	6.28
Visc @ 100°C	cSt	ASTM D445	14.4	● 12.3	● 12.1	12.89



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0869017 **Received** : 26 Feb 2024
Lab Number : 06099621 **Tested** : 28 Feb 2024
Unique Number : 10897851 **Diagnosed** : 28 Feb 2024 - Jonathan Hester
Test Package : FLEET (Additional Tests: Glycol)

DOLE FRESH FRUIT
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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)