



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
DFGS103943
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

Check for low coolant level. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0950021	WC0814643	WC0688900
Sample Date		Client Info		10 Jun 2024	26 May 2023	13 Apr 2022
Machine Age	hrs	Client Info		16770	15249	13779
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	N/A	N/A
Sample Status				ATTENTION	ABNORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	10	22	33
Chromium	ppm	ASTM D5185m	>20	0	0	2
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	5	11	19
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	1	<1	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

Sodium and/or potassium levels are high. Test for glycol is negative.

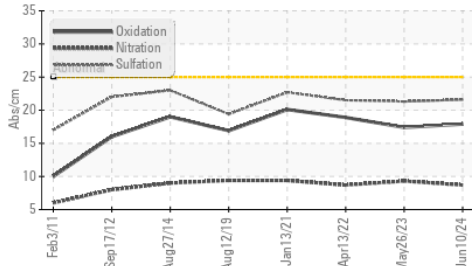
Silicon	ppm	ASTM D5185m	>25	6	5	7
Potassium	ppm	ASTM D5185m	>20	3	2	2
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.7	9.3	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	21.3	21.5
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

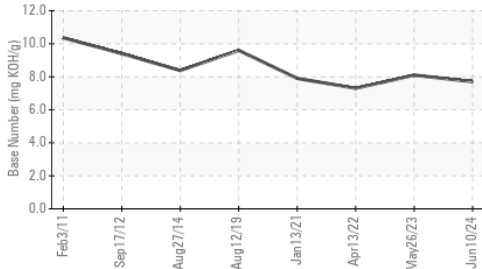
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		110	358	23
Boron	ppm	ASTM D5185m		333	319	341
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		79	85	94
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m		373	541	420
Calcium	ppm	ASTM D5185m		1671	1591	1527
Phosphorus	ppm	ASTM D5185m		1006	1095	960
Zinc	ppm	ASTM D5185m		1278	1463	1208
Sulfur	ppm	ASTM D5185m		3711	4215	3504
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.9	17.4	18.9
Base Number (BN)	mg KOH/g	ASTM D2896		7.7	8.1	7.3
Visc @ 100°C	cSt	ASTM D445		13.8	13.8	14.0

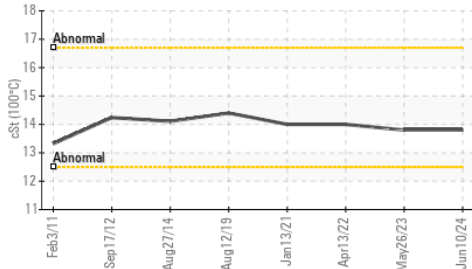
FT-IR (Direct Trend)



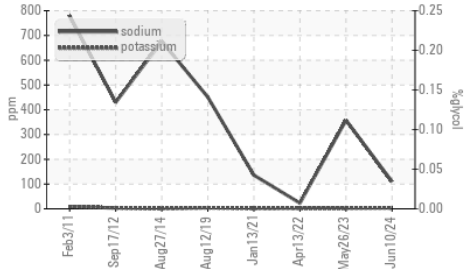
Base Number



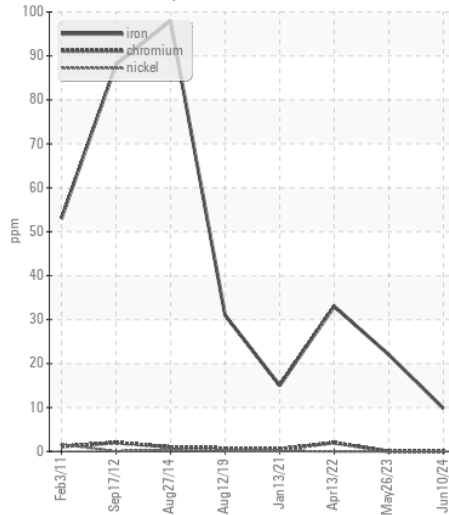
Viscosity @ 100°C



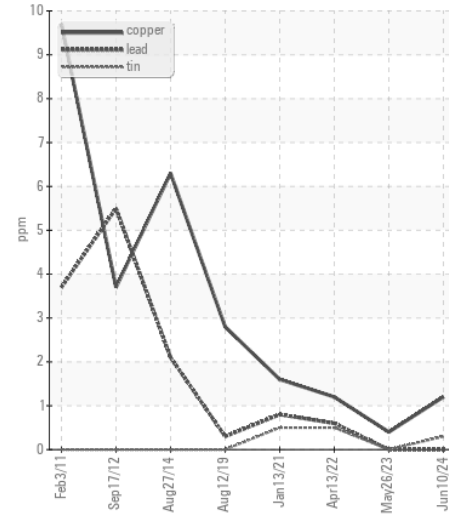
Glycol Contamination



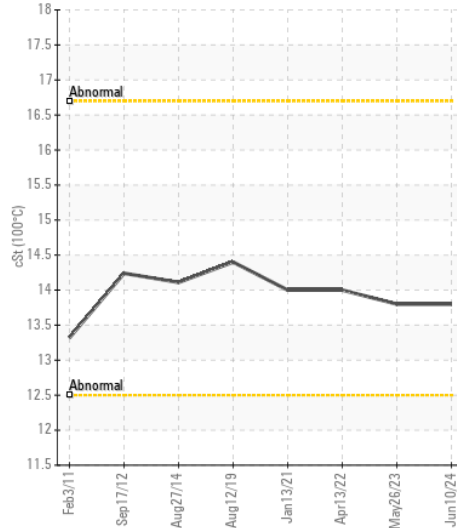
Ferrous Alloys



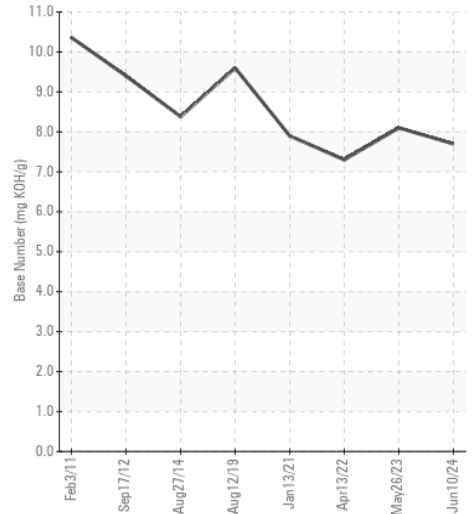
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0950021 **Received** : 17 Jul 2024
Lab Number : 06239784 **Tested** : 19 Jul 2024
Unique Number : 11128618 **Diagnosed** : 19 Jul 2024 - Sean Felton
Test Package : FLEET (Additional Tests: Glycol)

DOLE FRESH FRUIT
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 NEW CASTLE, DE
 US 19720
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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)