



WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
DFGS273229
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

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		WC0911166	WC0641866	WCMFB92445
Sample Date		Client Info		12 May 2024	22 Nov 2021	30 Jul 2018
Machine Age	hrs	Client Info		0	0	7347
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				ATTENTION	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	16	13	12
Chromium	ppm	ASTM D5185m	>20	3	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	6	7	4
Lead	ppm	ASTM D5185m	>40	0	<1	<1
Copper	ppm	ASTM D5185m	>330	2	3	5
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

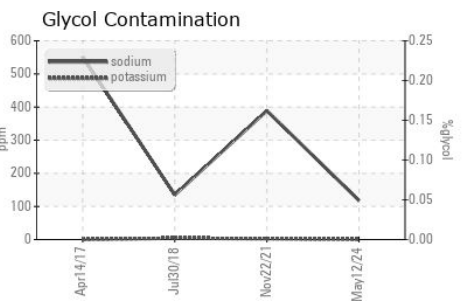
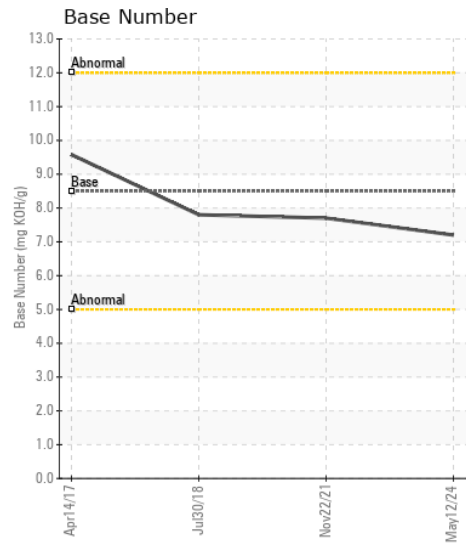
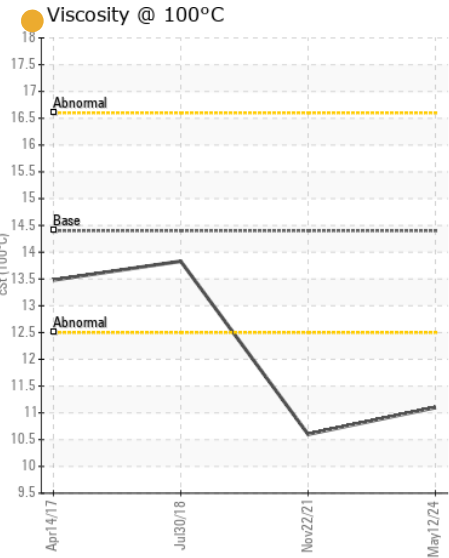
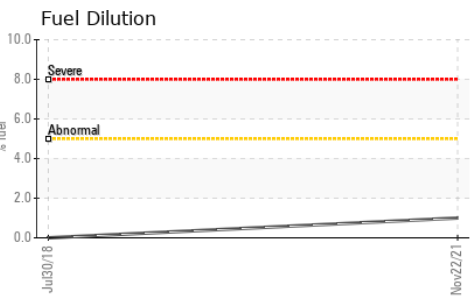
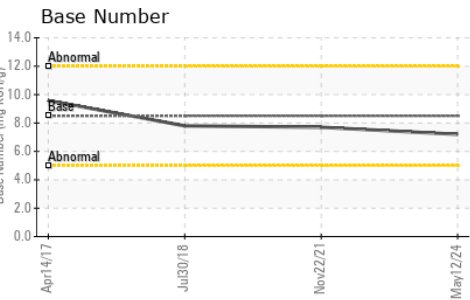
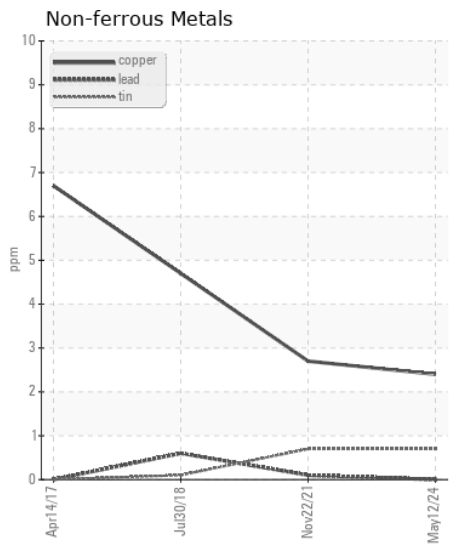
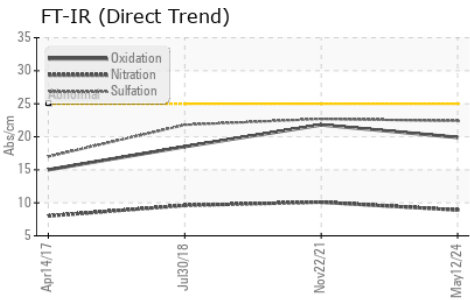
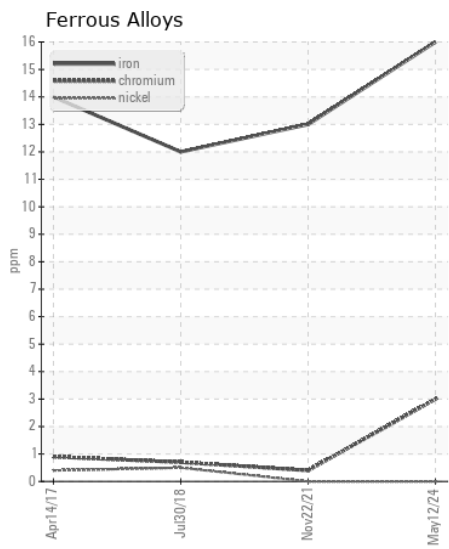
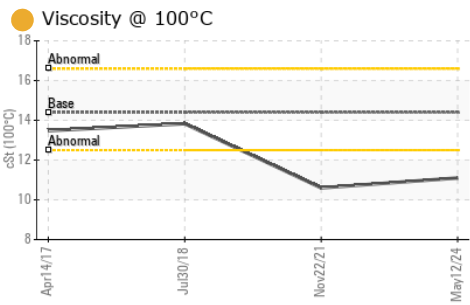
Sodium and/or potassium levels are high.

Silicon	ppm	ASTM D5185m	>25	6	5	3
Potassium	ppm	ASTM D5185m	>20	<1	2	4
Fuel	%	ASTM D3524	>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	0.2	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.9	10.1	9.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	22.7	21.8
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 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	● 118	▲ 389	● 135
Boron	ppm	ASTM D5185m	250	300	305	304
Barium	ppm	ASTM D5185m	10	0	0	<1
Molybdenum	ppm	ASTM D5185m	100	84	127	83
Manganese	ppm	ASTM D5185m		<1	<1	2
Magnesium	ppm	ASTM D5185m	450	457	551	409
Calcium	ppm	ASTM D5185m	3000	1579	1513	1388
Phosphorus	ppm	ASTM D5185m	1150	1026	658	816
Zinc	ppm	ASTM D5185m	1350	1238	917	1096
Sulfur	ppm	ASTM D5185m	4250	3577	2250	2836
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.9	21.8	18.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	7.2	7.7	7.8
Visc @ 100°C	cSt	ASTM D445	14.4	● 11.1	● 10.6	13.83



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0911166 **Received** : 22 May 2024
Lab Number : 06188400 **Tested** : 28 May 2024
Unique Number : 11045152 **Diagnosed** : 28 May 2024 - Sean Felton
Test Package : FLEET (Additional Tests: FuelDilution, Glycol, PercentFuel)
 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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