OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	ABNORMAL

Machine Id
1223
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

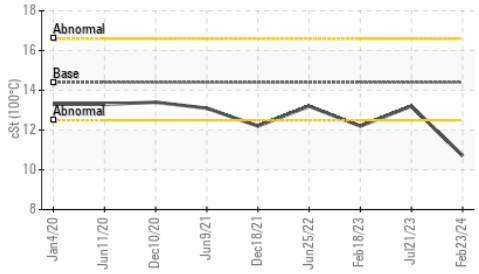
Light fuel dilution occurring.

FLUID CONDITION

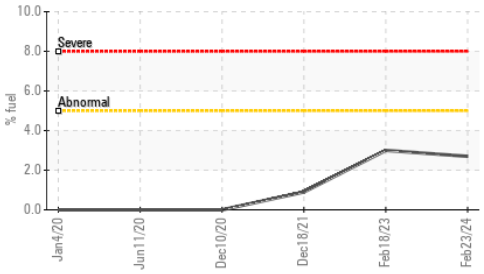
The BN result indicates that there is suitable alkalinity remaining in the oil. Fuel is present in the oil and is lowering the viscosity. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0854002	WC0822949	WC0740482
Sample Date		Client Info		23 Feb 2024	21 Jul 2023	18 Feb 2023
Machine Age	mls	Client Info		67070	59702	54351
Oil Age	mls	Client Info		0	5351	0
Filter Age	mls	Client Info		0	5351	0
Oil Changed		Client Info		N/A	N/A	Changed
Filter Changed		Client Info		N/A	N/A	Changed
Sample Status				ABNORMAL	NORMAL	ATTENTION
Iron	ppm	ASTM D5185m	>100	29	25	54
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	15	12	16
Lead	ppm	ASTM D5185m	>40	<1	0	<1
Copper	ppm	ASTM D5185m	>330	1	1	1
Tin	ppm	ASTM D5185m	>15	<1	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	7	5	8
Potassium	ppm	ASTM D5185m	>20	8	10	13
Fuel	%	ASTM D3524	>5	▲ 2.7	<1.0	▲ 3.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.5	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.9	9.2	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	21.4	24.5
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
Sodium	ppm	ASTM D5185m	>44	2	2	2
Boron	ppm	ASTM D5185m	250	6	92	42
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	59	63	66
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	450	876	398	317
Calcium	ppm	ASTM D5185m	3000	1235	1827	1769
Phosphorus	ppm	ASTM D5185m	1150	1060	1035	846
Zinc	ppm	ASTM D5185m	1350	1275	1266	1150
Sulfur	ppm	ASTM D5185m	4250	3611	3890	3482
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.1	19.8	22.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.9	7.0	5.2
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 10.7	13.2	● 12.2

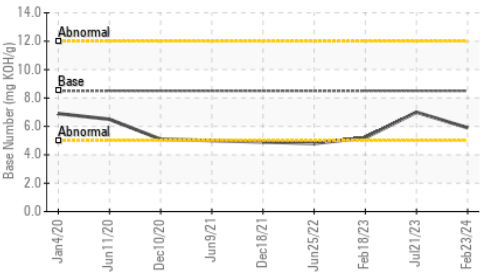
Viscosity @ 100°C



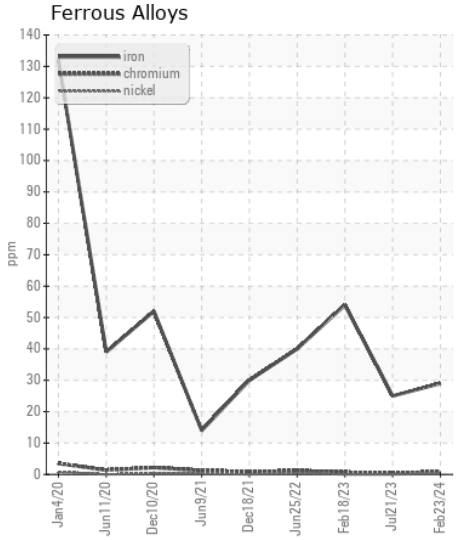
Fuel Dilution



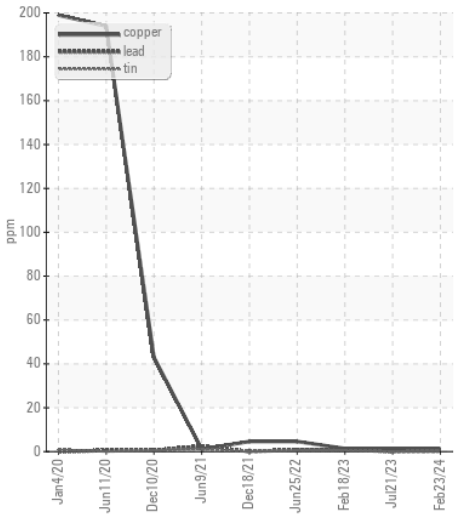
Base Number



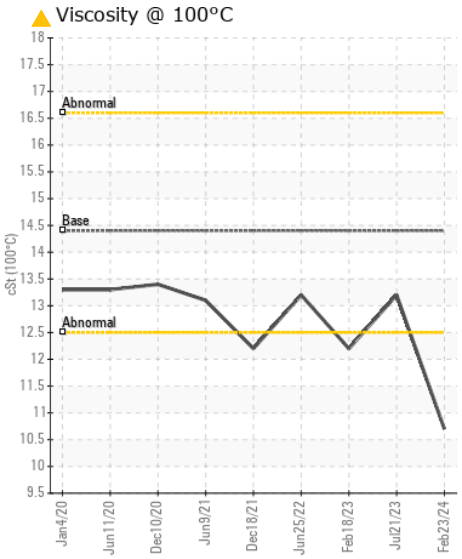
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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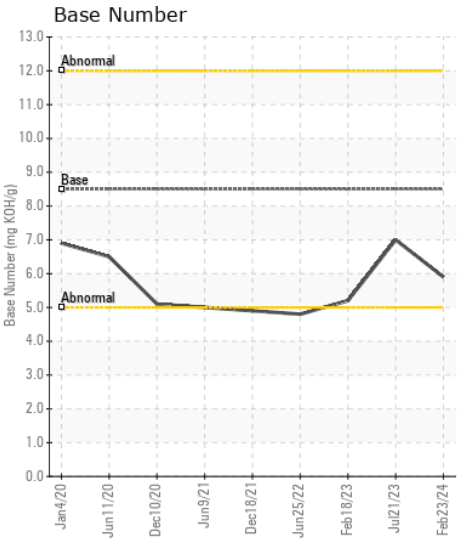

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0854002 **Received** : 18 Mar 2024
Lab Number : 06121476 **Tested** : 21 Mar 2024
Unique Number : 10930309 **Diagnosed** : 21 Mar 2024 - Wes Davis
Test Package : FLEET (Additional Tests: FuelDilution, 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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