OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
INTERNATIONAL 3810
Component
Diesel Engine
Fluid
SHELL 10W30 (36 QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

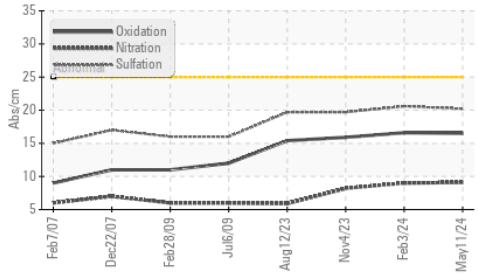
There is no indication of any contamination in the oil.

FLUID CONDITION

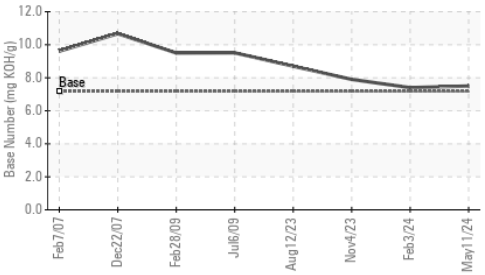
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0916547	WC0878537	WC0853999
Sample Date		Client Info		11 May 2024	03 Feb 2024	04 Nov 2023
Machine Age	mls	Client Info		83449	55186	32856
Oil Age	mls	Client Info		28263	22330	22981
Filter Age	mls	Client Info		28263	22330	22981
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>150	17	20	20
Chromium	ppm	ASTM D5185m	>15	2	<1	<1
Nickel	ppm	ASTM D5185m	>4	1	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	1	0	<1
Aluminum	ppm	ASTM D5185m	>15	8	8	18
Lead	ppm	ASTM D5185m	>70	2	1	<1
Copper	ppm	ASTM D5185m	>175	5	4	10
Tin	ppm	ASTM D5185m	>5	2	<1	2
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	8	8	13
Potassium	ppm	ASTM D5185m	>20	22	26	55
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	9.1	9.0	8.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	20.6	19.7
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
Sodium	ppm	ASTM D5185m		2	1	<1
Boron	ppm	ASTM D5185m		<1	<1	7
Barium	ppm	ASTM D5185m		<1	0	0
Molybdenum	ppm	ASTM D5185m		62	63	57
Manganese	ppm	ASTM D5185m		1	<1	1
Magnesium	ppm	ASTM D5185m	470	976	1085	946
Calcium	ppm	ASTM D5185m	1150	1064	1117	1128
Phosphorus	ppm	ASTM D5185m	94	979	1124	1045
Zinc	ppm	ASTM D5185m	1030	1218	1400	1336
Sulfur	ppm	ASTM D5185m		2895	3362	3099
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.5	16.6	15.9
Base Number (BN)	mg KOH/g	ASTM D2896	7.17	7.5	7.4	7.9
Visc @ 100°C	cSt	ASTM D445	10.90	11.1	11.1	11.2

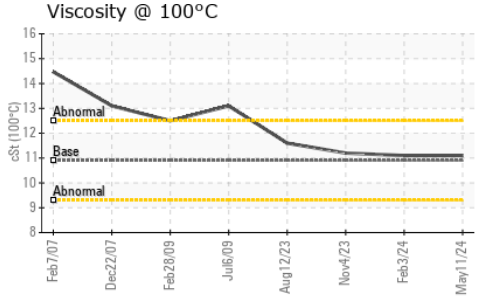
FT-IR (Direct Trend)



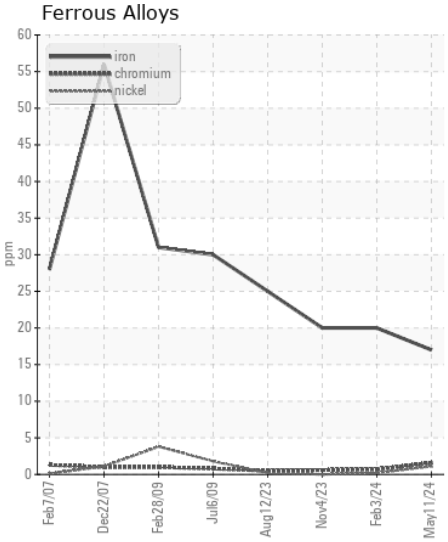
Base Number



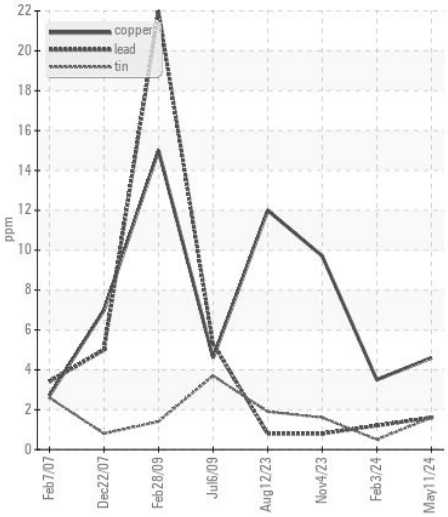
Viscosity @ 100°C



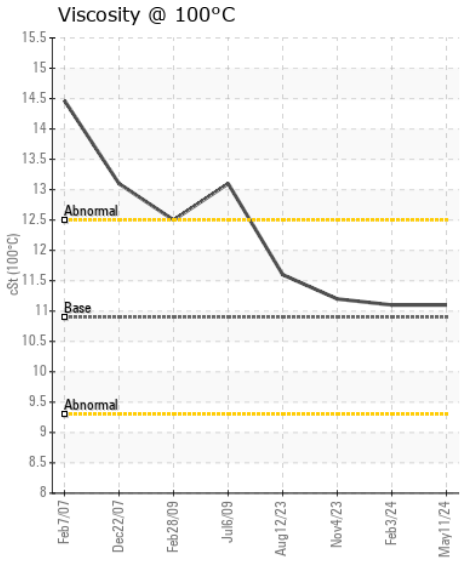
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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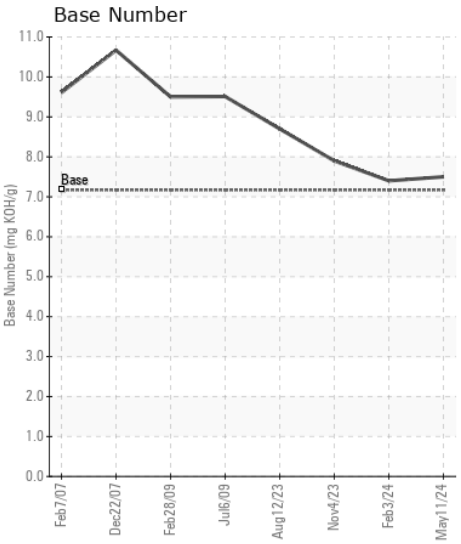

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0916547
Lab Number : 06191921
Unique Number : 11048673
Test Package : FLEET

Received : 28 May 2024
Tested : 29 May 2024
Diagnosed : 29 May 2024 - Wes Davis

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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