OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
21606
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

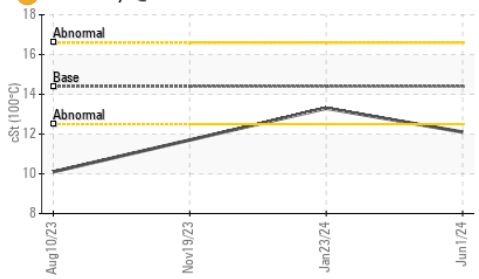
Fuel content negligible. There is no indication of any contamination in the oil.

FLUID CONDITION

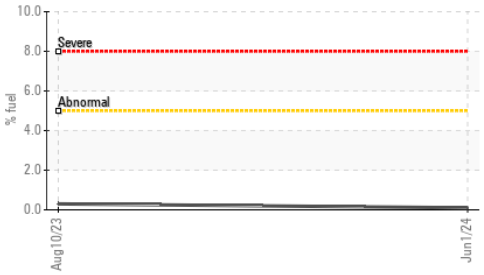
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0946133	WC0847828	WC0871989
Sample Date		Client Info		01 Jun 2024	23 Jan 2024	19 Nov 2023
Machine Age	mls	Client Info		98508	63167	50387
Oil Age	mls	Client Info		36000	12780	20000
Filter Age	mls	Client Info		36000	12780	20000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	38	4	22
Chromium	ppm	ASTM D5185m	>20	2	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	<1
Aluminum	ppm	ASTM D5185m	>20	58	7	15
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	32	71	168
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	7	3	4
Potassium	ppm	ASTM D5185m	>20	144	7	29
Fuel	%	ASTM D3524	>5	0.1	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	1.1	0.5	0.6
Nitration	Abs/cm	*ASTM D7624	>20	8.1	6.8	8.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	21.8	20.2
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	>216	3	0	2
Boron	ppm	ASTM D5185m	250	114	322	9
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	135	81	62
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	450	433	465	817
Calcium	ppm	ASTM D5185m	3000	1528	1300	1144
Phosphorus	ppm	ASTM D5185m	1150	966	962	912
Zinc	ppm	ASTM D5185m	1350	1196	1208	1139
Sulfur	ppm	ASTM D5185m	4250	2913	2825	2515
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	15.1	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.6	7.0	8.2
Visc @ 100°C	cSt	ASTM D445	14.4	12.1	13.3	11.7

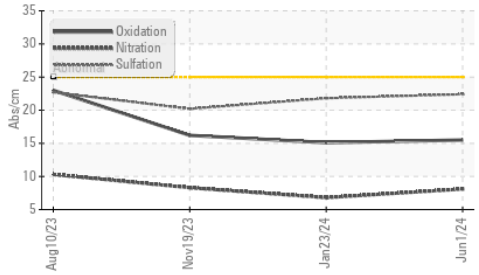
Viscosity @ 100°C



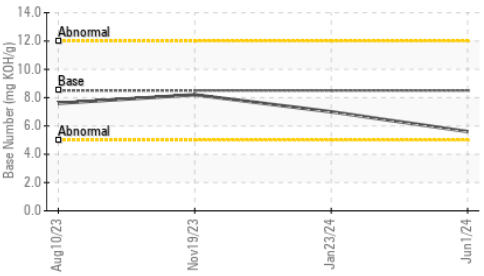
Fuel Dilution



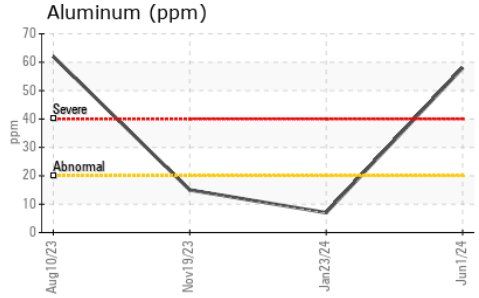
FT-IR (Direct Trend)



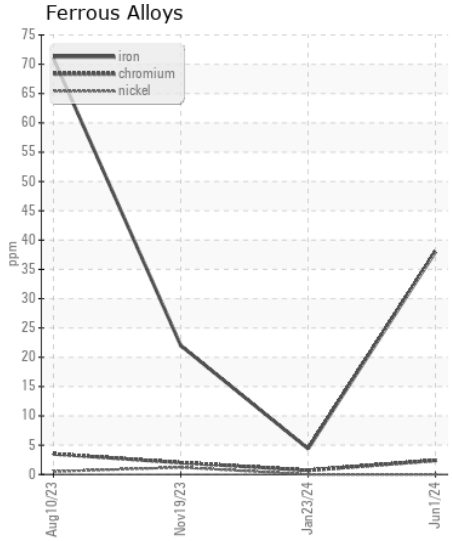
Base Number



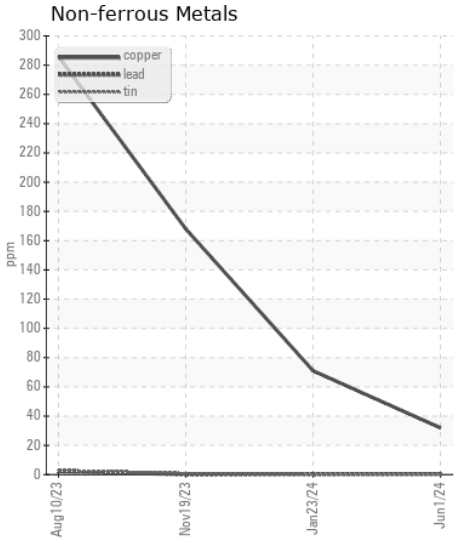
Aluminum (ppm)



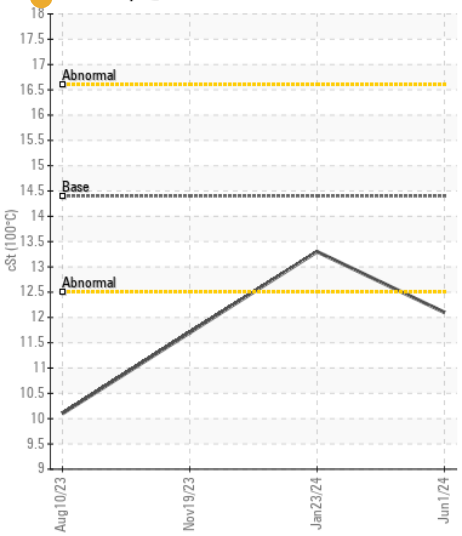
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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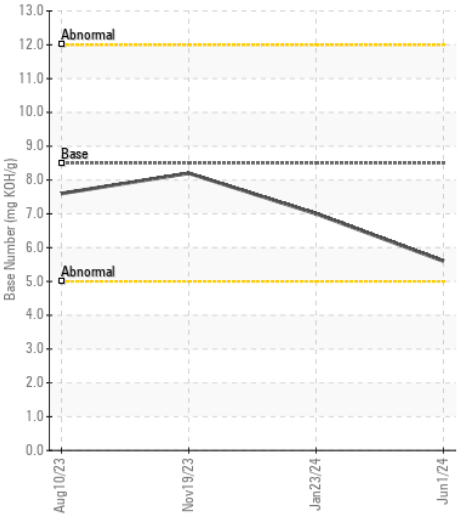

ANAB ACCREDITED ISO/IEC 17025 TESTING LABORATORY
Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0946133
Lab Number : 06231074
Unique Number : 11114567
Test Package : FLEET (Additional Tests: FuelDilution, PercentFuel)

Received : 08 Jul 2024
Tested : 11 Jul 2024
Diagnosed : 11 Jul 2024 - Sean Felton

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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