IDEALEASE

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
4221343
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- GAL)

RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. We recommend you service the filters on this component. Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

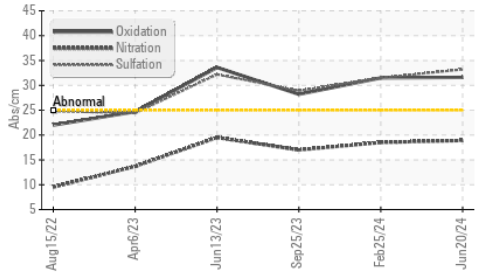
There is an abnormal amount of solids and carbon present in the oil.

FLUID CONDITION

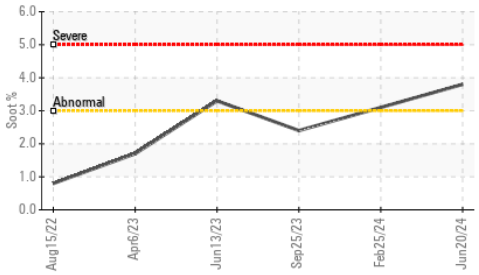
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**IL0035789**	IL0034874	IL06019336
Sample Date		Client Info		**20 Jun 2024**	25 Feb 2024	25 Sep 2023
Machine Age	mls	Client Info		**119299**	96699	68789
Oil Age	mls	Client Info		**2935**	0	8000
Filter Age	mls	Client Info		**0**	0	0
Oil Changed		Client Info		**N/A**	N/A	N/A
Filter Changed		Client Info		**N/A**	N/A	N/A
Sample Status				**ABNORMAL**	ABNORMAL	NORMAL
Iron	ppm	ASTM D5185m	>100	**62**	65	57
Chromium	ppm	ASTM D5185m	>20	**2**	2	1
Nickel	ppm	ASTM D5185m	>4	**0**	<1	0
Titanium	ppm	ASTM D5185m		**<1**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**10**	11	9
Lead	ppm	ASTM D5185m	>40	**11**	12	6
Copper	ppm	ASTM D5185m	>330	**12**	43	108
Tin	ppm	ASTM D5185m	>15	**2**	3	3
Vanadium	ppm	ASTM D5185m		**<1**	<1	<1
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**11**	12	11
Potassium	ppm	ASTM D5185m	>20	**4**	6	7
Fuel	%	ASTM D3524	>5	**<1.0**	<1.0	<1.0
Water		WC Method	>0.2	**NEG**	NEG	NEG
Glycol		WC Method		**NEG**	NEG	NEG
Soot %	%	*ASTM D7844	>3	▲ **3.8**	▲ 3.1	2.4
Nitration	Abs/cm	*ASTM D7624	>20	**18.9**	18.5	17.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	**33.2**	31.5	28.9
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	**6**	6	5
Boron	ppm	ASTM D5185m	250	**24**	23	14
Barium	ppm	ASTM D5185m	10	**0**	0	0
Molybdenum	ppm	ASTM D5185m	100	**65**	57	51
Manganese	ppm	ASTM D5185m		**1**	1	1
Magnesium	ppm	ASTM D5185m	450	**747**	687	582
Calcium	ppm	ASTM D5185m	3000	**2521**	2174	1936
Phosphorus	ppm	ASTM D5185m	1150	**1051**	941	860
Zinc	ppm	ASTM D5185m	1350	**1346**	1210	1042
Sulfur	ppm	ASTM D5185m	4250	**3207**	2268	2161
Oxidation	Abs/.1mm	*ASTM D7414	>25	**31.6**	31.5	28.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**8.6**	9.3	10.1
Visc @ 100°C	cSt	ASTM D445	14.4	**14.8**	▲ 14.3	13.1

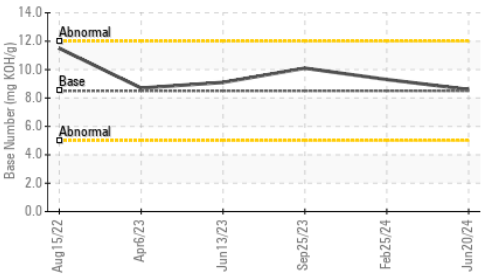
FT-IR (Direct Trend)



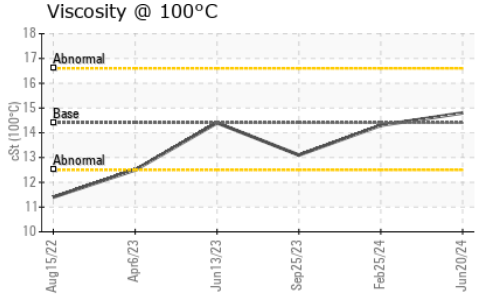
Soot %



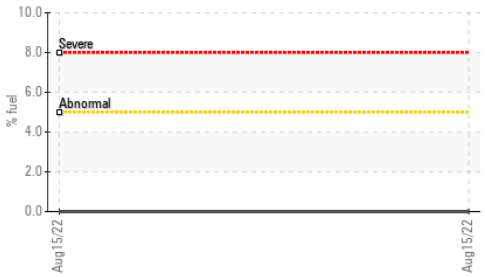
Base Number



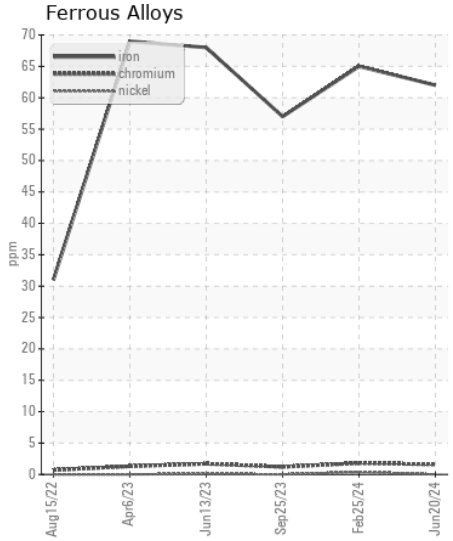
Viscosity @ 100°C



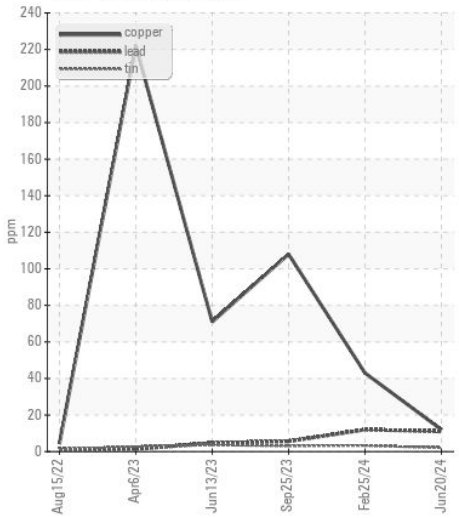
Fuel Dilution



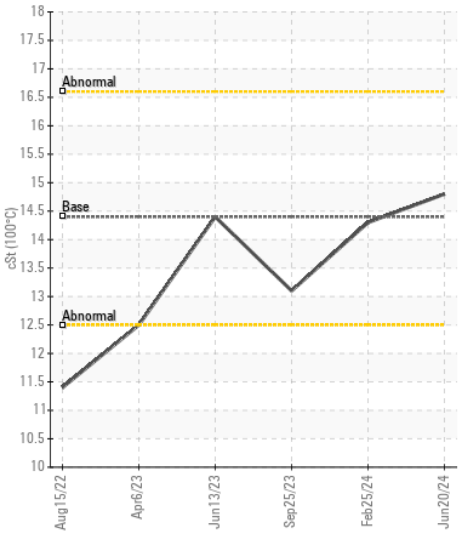
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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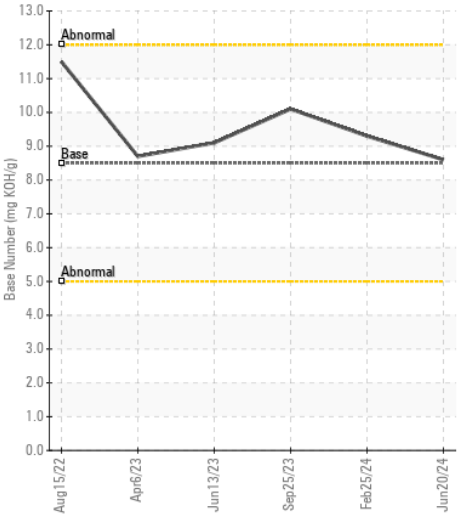

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0035789
Lab Number : 06223237
Unique Number : 11101434
Test Package : FLEET (Additional Tests: FuelDilution)

Received : 28 Jun 2024
Tested : 30 Jun 2024
Diagnosed : 30 Jun 2024 - Don Baldridge

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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