IDEALEASE FLEET

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	SEVERE
FLUID CONDITION	ABNORMAL

Machine Id
NN874499
Component
Diesel Engine
Fluid
{not provided} (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. We recommend that you drain the oil and perform a filter service on this component if not already done. We recommend an early resample to monitor this condition.

WEAR

All component wear rates are normal.

CONTAMINATION

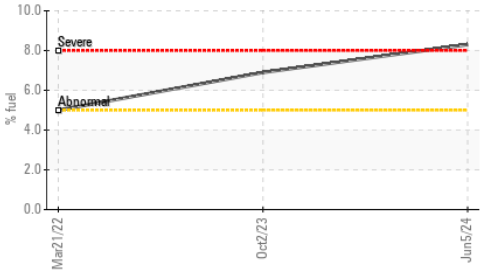
There is a high amount of fuel present in the oil. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components.

FLUID CONDITION

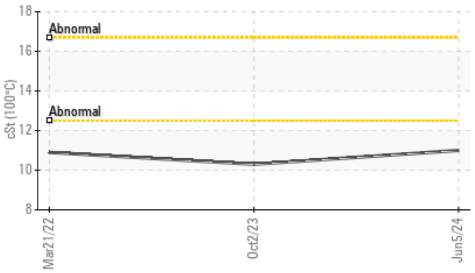
Fuel is present in the oil and is lowering the viscosity. The oil is no longer serviceable due to the presence of contaminants.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0035788	IL06009302	IL05509355
Sample Date		Client Info		05 Jun 2024	02 Oct 2023	21 Mar 2022
Machine Age	hrs	Client Info		25115	19802	4695
Oil Age	hrs	Client Info		0	19802	500
Filter Age	hrs	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				SEVERE	ABNORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	77	36	41
Chromium	ppm	ASTM D5185m	>20	4	2	2
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	<1
Aluminum	ppm	ASTM D5185m	>20	24	15	13
Lead	ppm	ASTM D5185m	>40	13	8	4
Copper	ppm	ASTM D5185m	>330	8	7	29
Tin	ppm	ASTM D5185m	>15	4	3	3
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	15	10	▲ 39
Potassium	ppm	ASTM D5185m	>20	59	41	46
Fuel	%	ASTM D3524	>5	▲ 8.3	▲ 6.9	▲ 5.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.6	0.4	0.2
Nitration	Abs/cm	*ASTM D7624	>20	16.8	13.1	8.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	28.6	24.5	20.5
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		5	4	5
Boron	ppm	ASTM D5185m		23	25	85
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		47	40	56
Manganese	ppm	ASTM D5185m		2	1	4
Magnesium	ppm	ASTM D5185m		501	451	403
Calcium	ppm	ASTM D5185m		1733	1471	1578
Phosphorus	ppm	ASTM D5185m		755	664	968
Zinc	ppm	ASTM D5185m		921	819	1147
Sulfur	ppm	ASTM D5185m		2537	2080	2490
Oxidation	Abs/.1mm	*ASTM D7414	>25	37.3	27.8	16.7
Base Number (BN)	mg KOH/g	ASTM D2896		3.6	5.5	7.7
Visc @ 100°C	cSt	ASTM D445		▲ 11.0	▲ 10.3	▲ 10.9

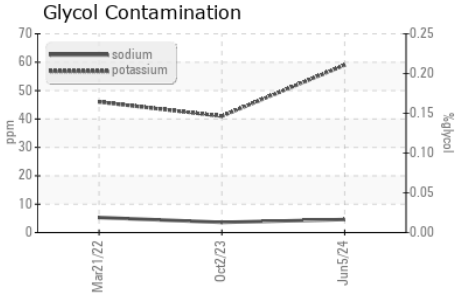
Fuel Dilution



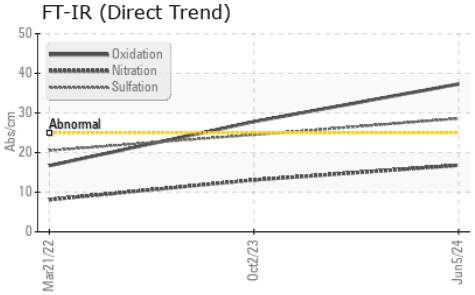
Viscosity @ 100°C



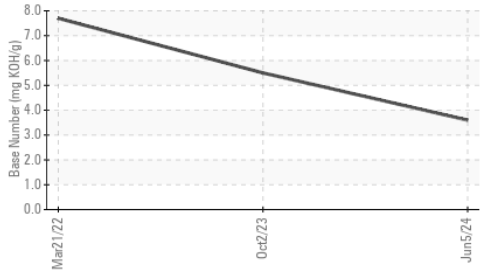
Glycol Contamination



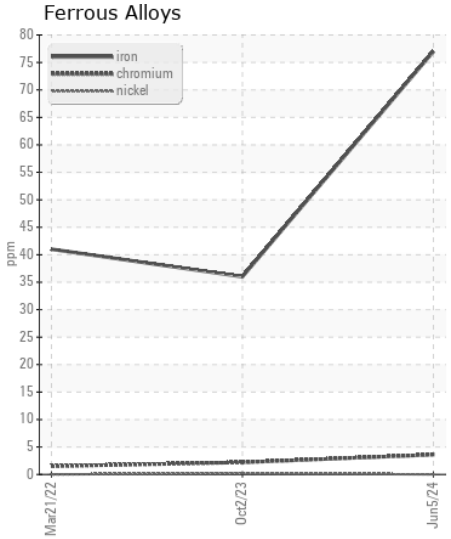
FT-IR (Direct Trend)



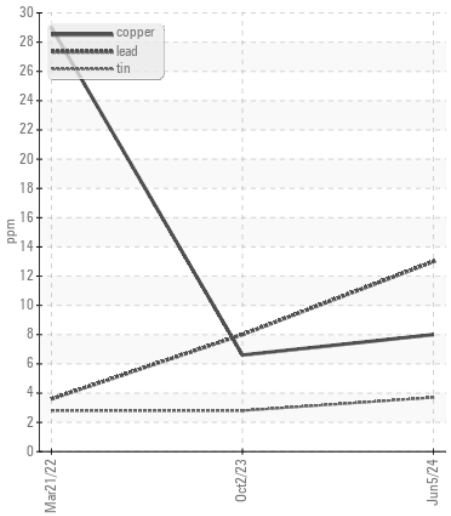
Base Number



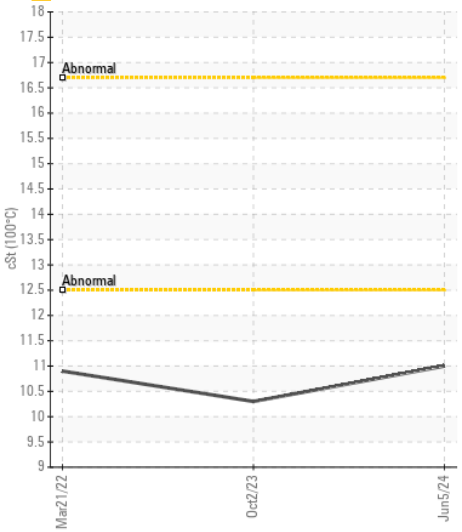
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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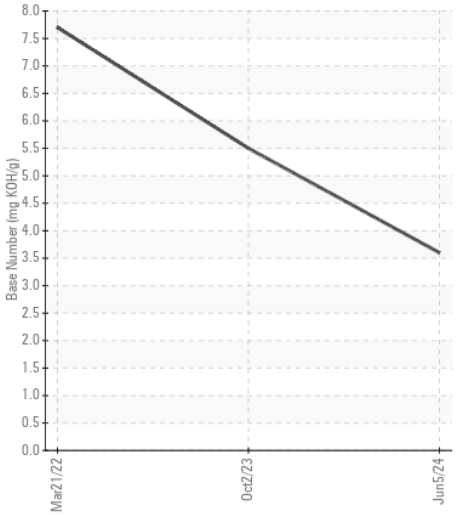

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : IL0035788
Lab Number : 06223234
Unique Number : 11101431
Test Package : FLEET (Additional Tests: PercentFuel)

Received : 28 Jun 2024
Tested : 02 Jul 2024
Diagnosed : 02 Jul 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)

IDEALEASE OF ATLANTA - FULTON
4675 BAKERS FERRY ROAD
ATLANTA, GA
US 30331
Contact: DAVID JOHNS
davidjohns@idealease.com
T: (404)699-5571
F: (404)699-7420