



WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Machine Id
8411757
 Component
Diesel Engine
 Fluid
MOBIL 1 SAE 10W30 (--- GAL)

RECOMMENDATION

No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		IL0035785	IL0030993	IL0034913
Sample Date		Client Info		12 Jun 2024	12 Mar 2024	28 Dec 2023
Machine Age	mls	Client Info		8931	6138	6083
Oil Age	mls	Client Info		208	0	6083
Filter Age	mls	Client Info		0	0	6083
Oil Changed		Client Info		N/A	N/A	Not Changd
Filter Changed		Client Info		N/A	N/A	Not Changd
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	30	24	27
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	0	0
Aluminum	ppm	ASTM D5185m	>20	20	11	12
Lead	ppm	ASTM D5185m	>40	1	<1	2
Copper	ppm	ASTM D5185m	>330	10	7	8
Tin	ppm	ASTM D5185m	>15	1	0	1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

Elemental level of silicon (Si) above normal indicating ingress of seal material. 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.

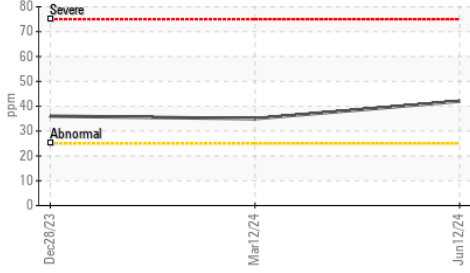
Silicon	ppm	ASTM D5185m	>25	▲ 42	35	36
Potassium	ppm	ASTM D5185m	>20	53	33	37
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	5.8	5.6	5.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.5	19.5	19.6
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

FLUID CONDITION

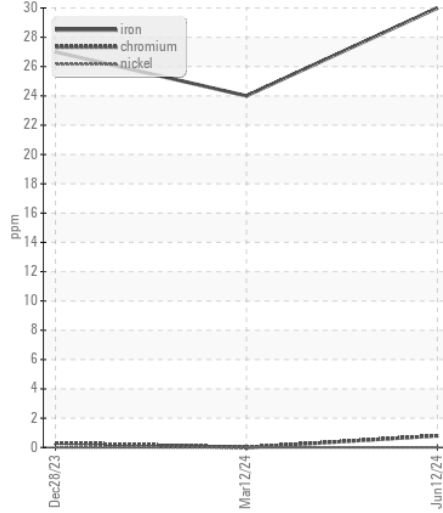
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185m		4	2	2
Boron	ppm	ASTM D5185m		96	95	101
Barium	ppm	ASTM D5185m		4	3	3
Molybdenum	ppm	ASTM D5185m		66	60	62
Manganese	ppm	ASTM D5185m		4	3	3
Magnesium	ppm	ASTM D5185m		502	485	498
Calcium	ppm	ASTM D5185m		1972	1836	1804
Phosphorus	ppm	ASTM D5185m		1086	1038	1023
Zinc	ppm	ASTM D5185m		1316	1278	1270
Sulfur	ppm	ASTM D5185m		4048	3953	3461
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.3	15.6	15.4
Base Number (BN)	mg KOH/g	ASTM D2896		9.0	9.0	9.1
Visc @ 100°C	cSt	ASTM D445	10	11.4	11.3	11.5

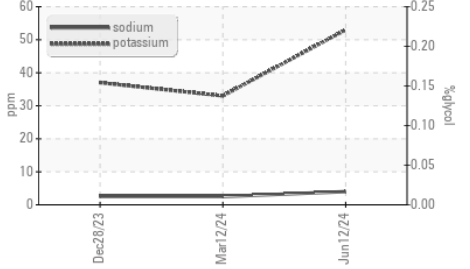
▲ Silicon (ppm)



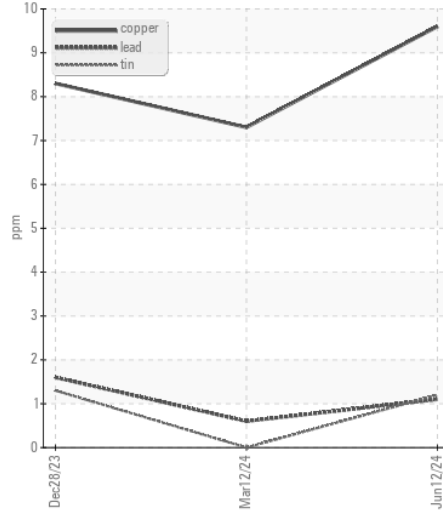
Ferrous Alloys



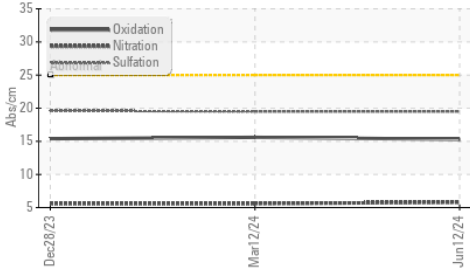
Glycol Contamination



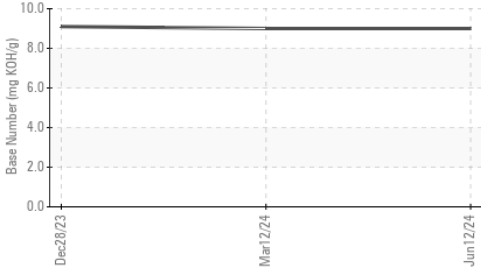
Non-ferrous Metals



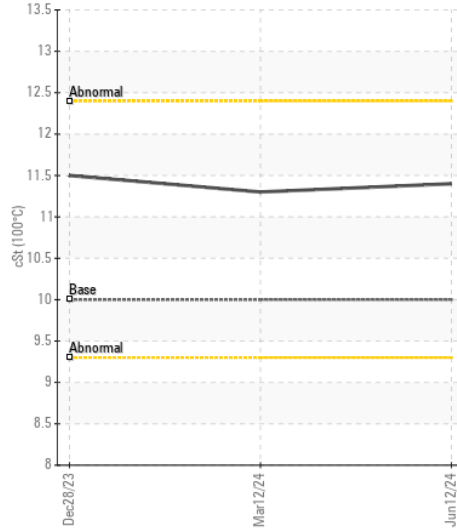
FT-IR (Direct Trend)



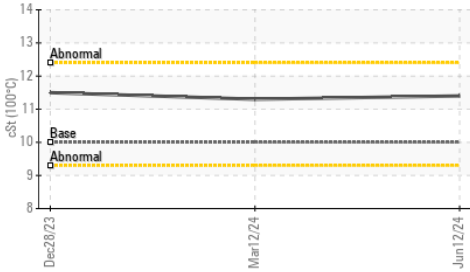
Base Number



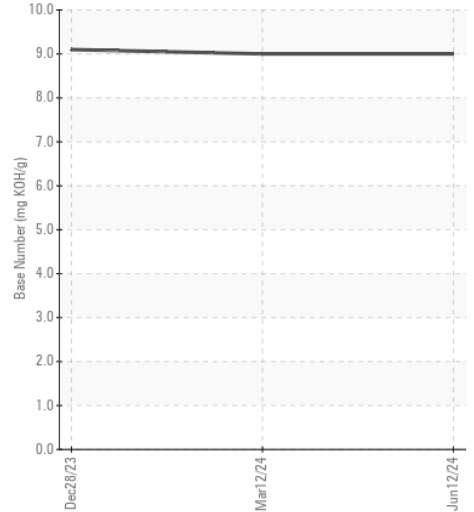
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : IL0035785

Lab Number : 06223232

Unique Number : 11101429

Test Package : FLEET

Received : 28 Jun 2024

Tested : 28 Jun 2024

Diagnosed : 30 Jun 2024 - Don Baldrige

IDEALRELEASE OF ATLANTA - FULTON

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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)