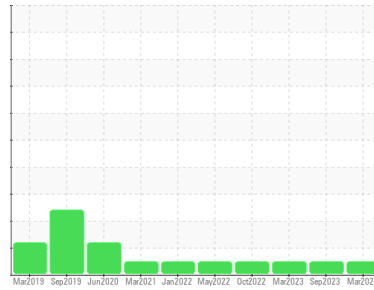




OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
EDG-2
 Component
Diesel Engine
 Fluid
MOBIL MOBILGARD 412 (--- GAL)

DIAGNOSIS

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			RP0039443	RP0038730	RP0031567
Sample Date	Client Info			31 Mar 2024	10 Sep 2023	14 Mar 2023
Machine Age	hrs	Client Info		0	0	0
Oil Age	hrs	Client Info		0	0	0
Oil Changed	Client Info			N/A	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	<1	2	2
Chromium	ppm	ASTM D5185m	>20	<1	0	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	0
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	1	<1	2
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	0	<1	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	0	0	0	<1
Barium	ppm	ASTM D5185m	0	0	0	0
Molybdenum	ppm	ASTM D5185m	0	0	<1	<1
Manganese	ppm	ASTM D5185m	0	<1	<1	<1
Magnesium	ppm	ASTM D5185m	18	19	16	20
Calcium	ppm	ASTM D5185m	6350	5755	6208	5794
Phosphorus	ppm	ASTM D5185m	200	224	220	213
Zinc	ppm	ASTM D5185m	380	376	370	354

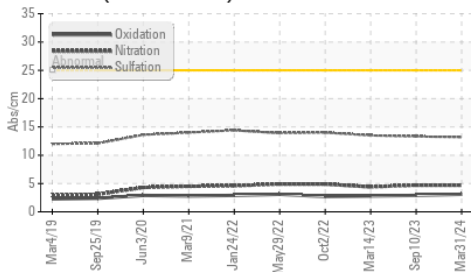
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	8	10	8
Sodium	ppm	ASTM D5185m		2	2	1
Potassium	ppm	ASTM D5185m	>20	2	<1	0
Water	%	ASTM D6304	>0.2	NEG	0.045	0.011
ppm Water	ppm	ASTM D6304	>2000	---	452.6	117.7

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0	0	0.1
Nitration	Abs/cm	*ASTM D7624	>20	4.7	4.7	4.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	13.2	13.3	13.5

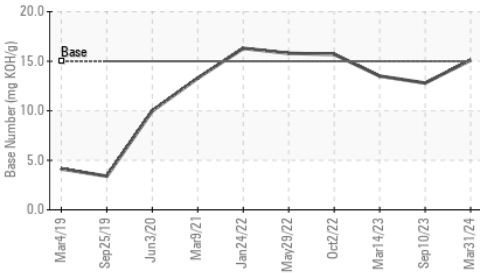
FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	3.1	2.9	2.8
Acid Number (AN)	mg KOH/g	ASTM D8045	1.25	---	---	0.566
Base Number (BN)	mg KOH/g	ASTM D2896	15	15.11	12.8	13.5

OIL ANALYSIS REPORT

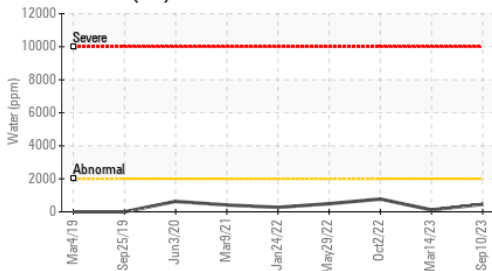
FT-IR (Direct Trend)



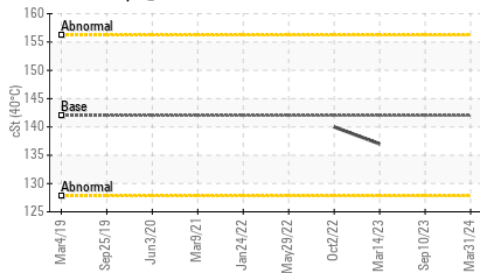
Base Number



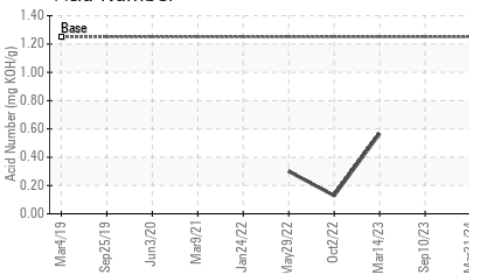
Water (KF)



Viscosity @ 40°C



Acid Number

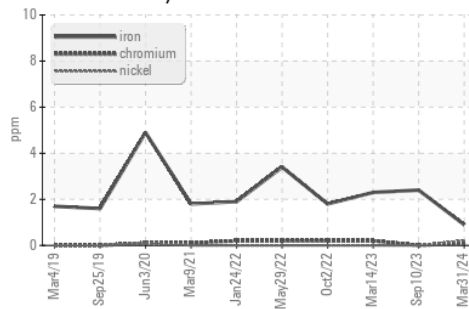


VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG

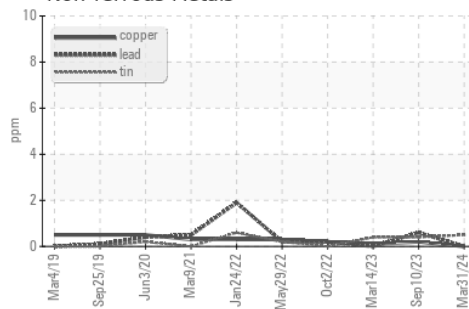
FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	142	---	137
Visc @ 100°C	cSt	ASTM D445	14.5	14.01	13.97

GRAPHS

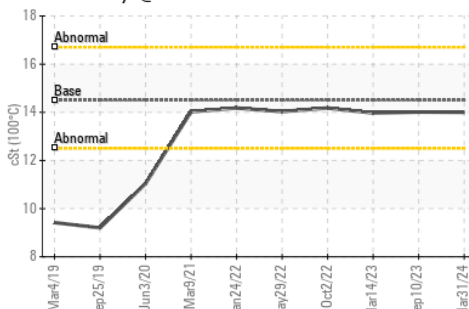
Ferrous Alloys



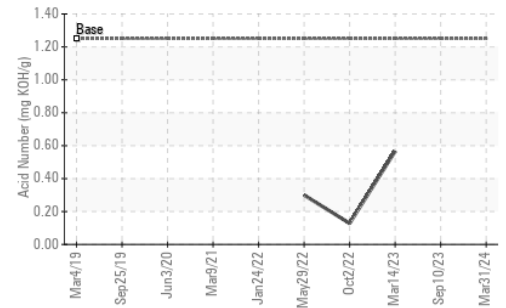
Non-ferrous Metals



Viscosity @ 100°C



Acid Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : RP0039443
Lab Number : 06135145
Unique Number : 10954610
Test Package : IND 2 (Additional Tests: FT-IR, KV100, PQ, TBN)

Received : 01 Apr 2024
Tested : 08 Apr 2024
Diagnosed : 08 Apr 2024 - Jonathan Hester

ENGIE-MATEP
 474 BROOKLINE AVE
 BOSTON, MA
 US 02215

Contact: ROBERT ST SAUVEUR
 robert.stsauveur@engie.com
 T: (401)651-9381

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)