



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Area

[SWA584493]

Machine Id

SENNEBOGEN 835ME 835.0.2012 (S/N 835.2012)

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

We advise that you check the fuel injection system. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP395168	VCP452569	VCP404386
Sample Date		Client Info		17 Jun 2024	23 May 2024	20 Jan 2023
Machine Age	hrs	Client Info		19131	19052	17488
Oil Age	hrs	Client Info		79	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Changed	Changed
Filter Changed		Client Info		Not Changd	Changed	Changed
Sample Status				ABNORMAL	SEVERE	SEVERE

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	9	104	41
Chromium	ppm	ASTM D5185m	>20	0	3	1
Nickel	ppm	ASTM D5185m	>4	<1	1	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	7	4
Lead	ppm	ASTM D5185m	>40	0	0	1
Copper	ppm	ASTM D5185m	>330	0	3	1
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

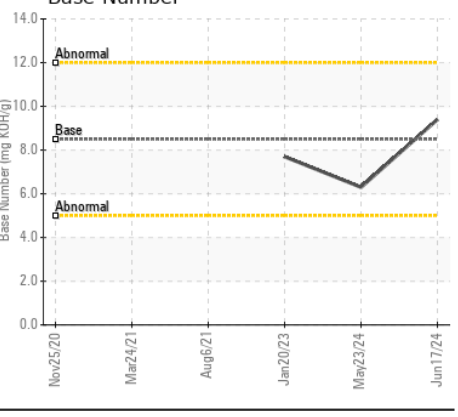
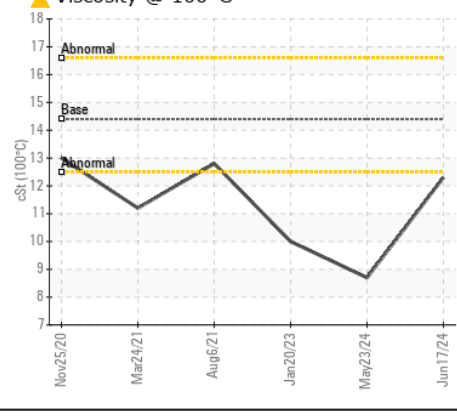
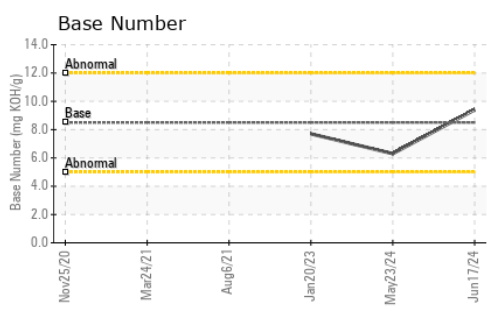
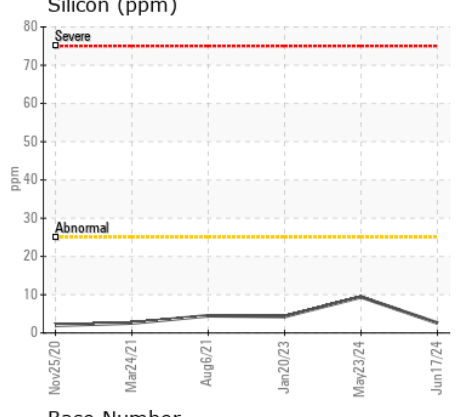
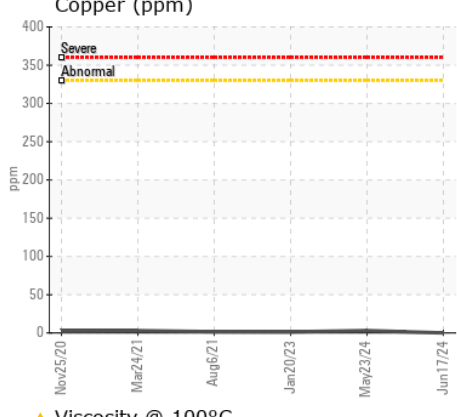
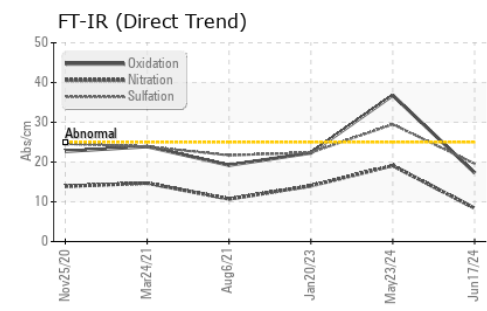
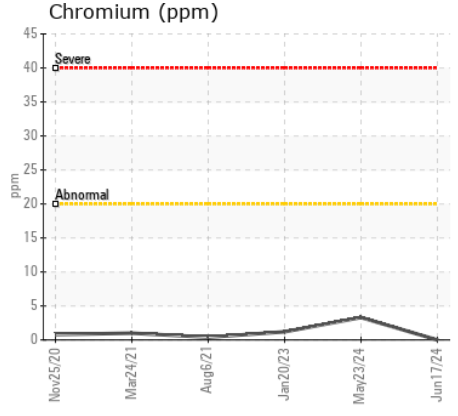
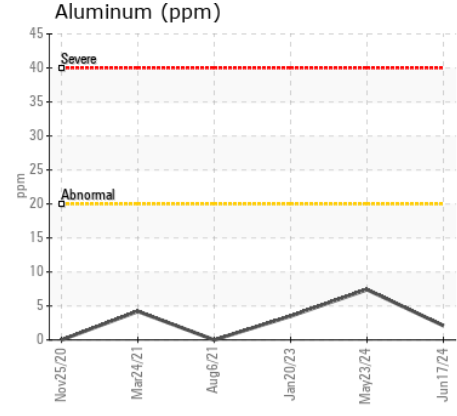
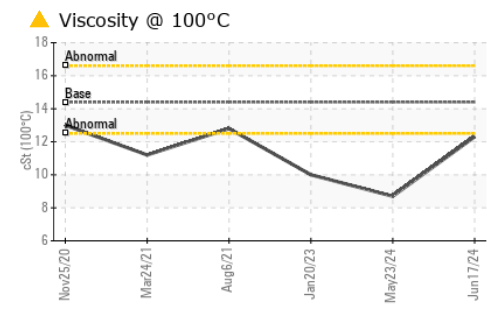
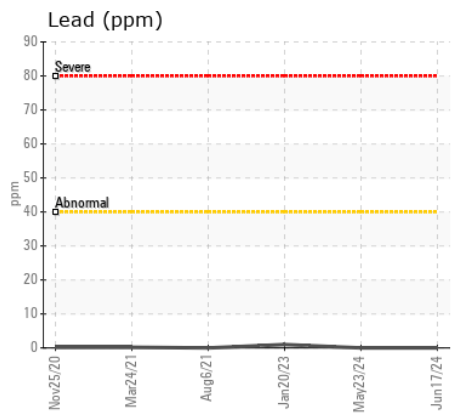
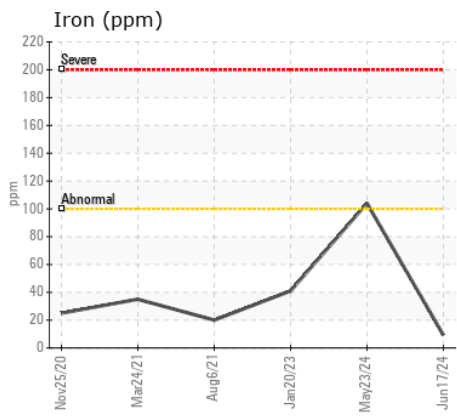
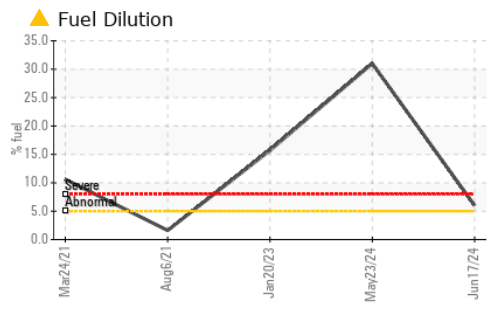
There is a moderate amount of fuel present in the oil.

Silicon	ppm	ASTM D5185m	>25	3	9	4
Potassium	ppm	ASTM D5185m	>20	4	3	<1
Fuel	%	ASTM D3524	>5	▲ 6.0	▲ 31.0	▲ 15.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.3	1.4	0.8
Nitration	Abs/cm	*ASTM D7624	>20	8.4	19.1	14.0
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.6	29.5	22.4
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

Fuel is present in the oil and is lowering the viscosity. The BN result indicates that there is suitable alkalinity remaining in the oil.

Sodium	ppm	ASTM D5185m	>158	2	7	2
Boron	ppm	ASTM D5185m	250	2	9	0
Barium	ppm	ASTM D5185m	10	0	<1	0
Molybdenum	ppm	ASTM D5185m	100	50	46	56
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	450	917	703	927
Calcium	ppm	ASTM D5185m	3000	1018	915	1093
Phosphorus	ppm	ASTM D5185m	1150	1004	816	943
Zinc	ppm	ASTM D5185m	1350	1204	989	1226
Sulfur	ppm	ASTM D5185m	4250	3437	2495	3184
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.3	36.8	22.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.4	6.3	7.7
Visc @ 100°C	cSt	ASTM D445	14.4	▲ 12.3	▲ 8.7	▲ 10.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP395168 **Received** : 20 Jun 2024
Lab Number : 06215392 **Tested** : 24 Jun 2024
Unique Number : 11088256 **Diagnosed** : 24 Jun 2024 - Jonathan Hester
Test Package : MOB 1 (Additional Tests: PercentFuel, TBN)

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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)