



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

[SPM702318]

Machine Id

SENNEBOGEN 835ME 835.0.2859

Component

Diesel Engine

Fluid

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

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP446091	VCP415081	VCP423159
Sample Date		Client Info		24 Apr 2024	28 Sep 2023	13 Jun 2023
Machine Age	hrs	Client Info		6712	5054	4333
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	6	14	9
Chromium	ppm	ASTM D5185m	>20	0	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	<1	4	1
Lead	ppm	ASTM D5185m	>40	0	<1	0
Copper	ppm	ASTM D5185m	>330	2	2	1
Tin	ppm	ASTM D5185m	>15	0	<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 no indication of any contamination in the oil.

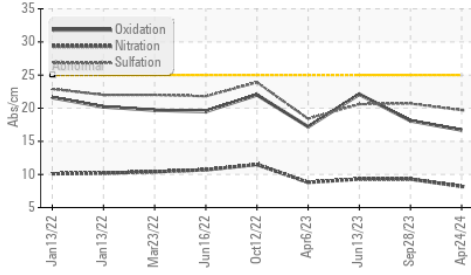
Silicon	ppm	ASTM D5185m	>25	3	5	4
Potassium	ppm	ASTM D5185m	>20	0	9	2
Fuel		WC Method	>5	<1.0	<1.0	0.7
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.1	0.2	0.2
Nitration	Abs/cm	*ASTM D7624	>20	8.2	9.3	9.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.7	20.7	20.6
Silt	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

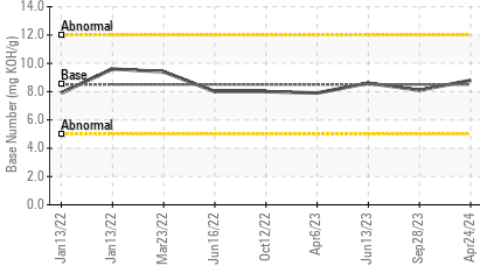
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m	>158	2	2	<1
Boron	ppm	ASTM D5185m	250	0	0	0
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	61	63	62
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	450	1003	1027	1012
Calcium	ppm	ASTM D5185m	3000	1144	1101	1090
Phosphorus	ppm	ASTM D5185m	1150	1038	1052	1052
Zinc	ppm	ASTM D5185m	1350	1252	1335	1348
Sulfur	ppm	ASTM D5185m	4250	3570	3026	3723
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.7	18.1	22.1
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.8	8.1	8.6
Visc @ 100°C	cSt	ASTM D445	14.4	12.5	13.3	12.3

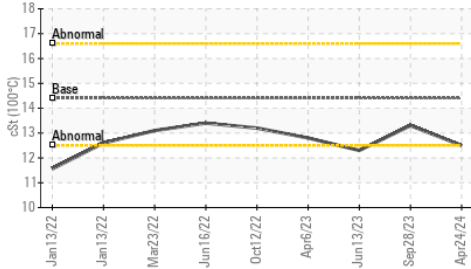
FT-IR (Direct Trend)



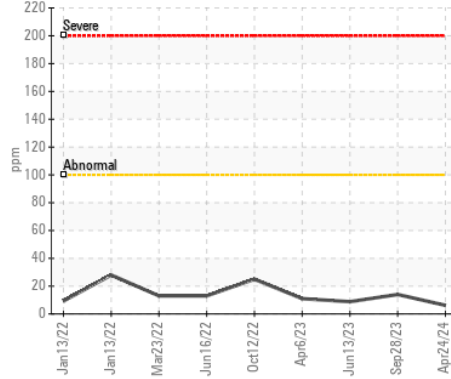
Base Number



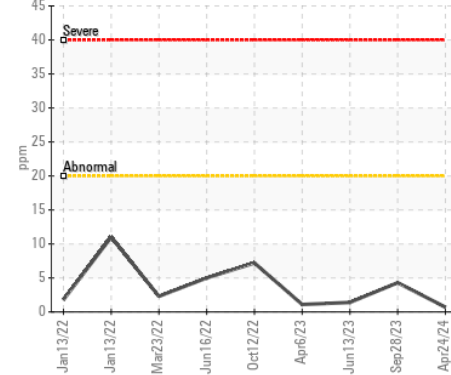
Viscosity @ 100°C



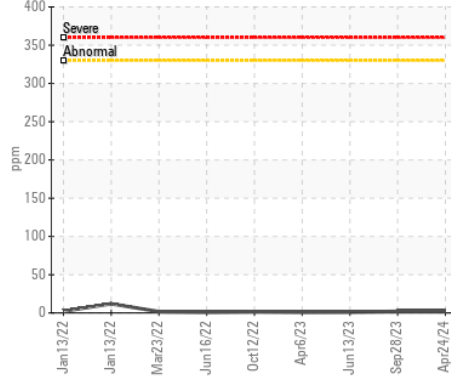
Iron (ppm)



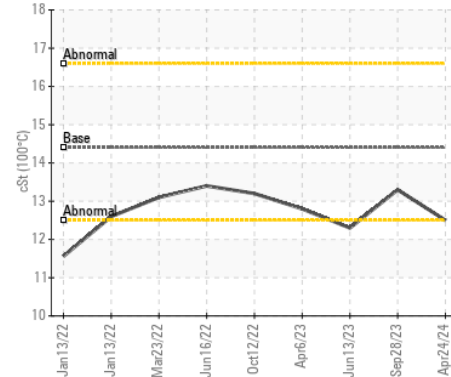
Aluminum (ppm)



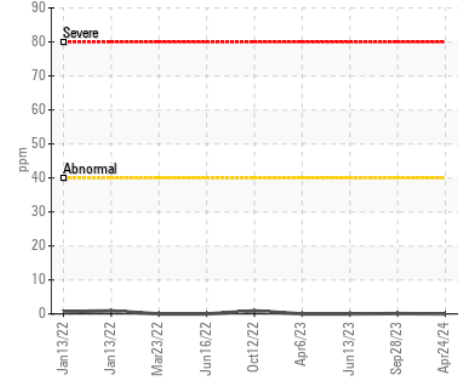
Copper (ppm)



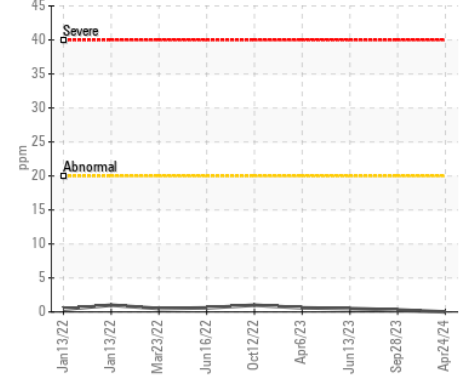
Viscosity @ 100°C



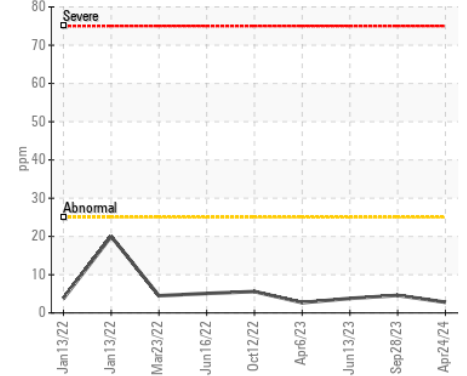
Lead (ppm)



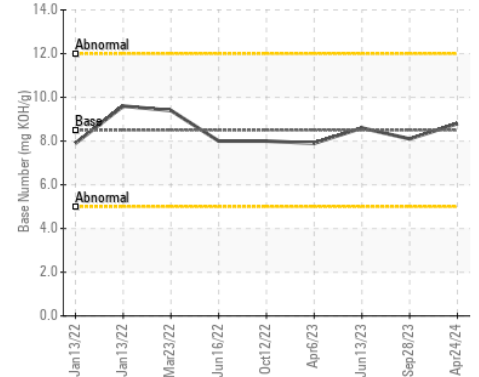
Chromium (ppm)



Silicon (ppm)



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP446091 **Received** : 14 May 2024
Lab Number : 06178292 **Tested** : 14 May 2024
Unique Number : 11029618 **Diagnosed** : 14 May 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

SIMS METAL MANAGEMENT
 2500 S. PAULINA
 CHICAGO, IL
 US 60608
 Contact: RYAN WISE
 ryan.wise@simsmm.com

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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