

WEAR NORMAL CONTAMINATION NORMAL FLUID CONDITION NORMAL

Machine Id 91071 Component Diesel Engine Fluid AMERIGUARD 15W40 (10 GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		SBP0005886	SBP0005540	SBP0005515
	Sample Date		Client Info		03 May 2024	08 Jan 2024	25 Sep 2023
	Machine Age	mls	Client Info		593454	573543	553600
	Oil Age	mls	Client Info		19911	19943	19809
	Filter Age	mls	Client Info		19911	19943	19809
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>80	14	12	14
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1	<1	<1
	Nickel	ppm	ASTM D5185m		0	0	<1
	Titanium	ppm	ASTM D5185m		<1	0	<1
	Silver	ppm	ASTM D5185m	>3	<1	0	0
	Aluminum	ppm	ASTM D5185m		6	4	5
	Lead	ppm	ASTM D5185m		<1	0	0
	Copper	ppm	ASTM D5185m		2	1	3
	Tin	ppm	ASTM D5185m		- <1	0	0
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon		ASTM D5185m	<20 <20	4	3	4
CONTAMINATION	Potassium	ppm ppm	ASTM D5185m		2	<1	2
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	>0.2	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	. ?	0.5	0.5	0.6
	Nitration	Abs/cm	*ASTM D7624		9.0	8.8	9.5
	Sulfation	Abs/.1mm	*ASTM D7024		20.4	20.8	21.4
	Silt	scalar	*Visual	NONE	20.4 NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
		scalar	*Visual	NORML	NORML	NORML	NORML
	Appearance Odor	scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION					-		
	Sodium	ppm	ASTM D5185m		2	<1	<1
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Boron	ppm	ASTM D5185m		0	0	1
	Barium	ppm	ASTM D5185m		0	0	3
	Molybdenum	ppm	ASTM D5185m		66	63	66
	Manganese	ppm	ASTM D5185m		<1	<1	0
	Magnesium	ppm	ASTM D5185m		1098	1097	986
	Calcium	ppm	ASTM D5185m		1303	1209	1139
	Phosphorus	ppm	ASTM D5185m		1184	1096	1088
	Zinc	ppm	ASTM D5185m		1450	1414	1287
	Sulfur	ppm	ASTM D5185m		3812	3227	3276
	Oxidation	Abs/.1mm	*ASTM D7414	>25	17.1	17.1	17.7
	Base Number (BN)	mg KOH/g	ASTM D2896		8.1	8.6	8.0
		<u> </u>	AOTH DAAF			1 1 1 0	4.4.5

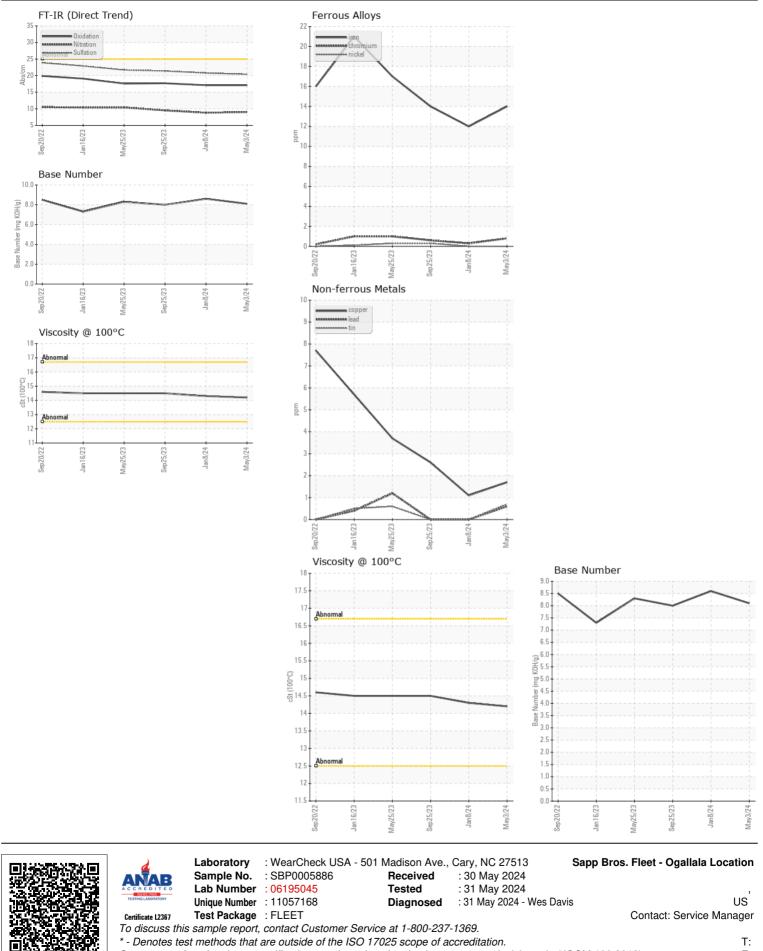
Visc @ 100°C cSt

ASTM D445

14.5

14.3

14.2



Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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