

Machine Id **34108** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.	Sample Number		Client Info		WC0852161		
	Sample Date		Client Info		05 Jan 2024		
	Machine Age	mls	Client Info		1988		
	Oil Age	mls	Client Info		0		
	Filter Age	mls	Client Info		0		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
WEAR	Iron	nnm	ASTM D5185m	> 100	3		
WEAN	Chromium	ppm	ASTM D5185m		3 <1		
Metal levels are typical for a new component breaking in.	Nickel	ppm	ASTM D5185m		0		
	Titanium	ppm ppm	ASTM D5185m	>4	۰ <1		
	Silver	ppm	ASTM D5185m	.2	0		
	Aluminum	ppm	ASTM D5185m		2		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		17		
	Tin	ppm	ASTM D5185m		<1		
	Vanadium	ppm	ASTM D5185m	210	<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4		
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	2		
	Fuel		WC Method	>5	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844	>3	0.1		
	Nitration	Abs/cm	*ASTM D7624	>20	5.5		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	19.4		
	Silt	scalar	*Visual	NONE	NONE		
	Debris	scalar	*Visual	NONE	NONE		
	Sand/Dirt	scalar	*Visual	NONE	NONE		
	Appearance	scalar	*Visual	NORML	NORML		
	Odor	scalar	*Visual	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG		
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	<1		
	Boron		ASTM D5185m		230		
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m		84		
	Manganese	ppm	ASTM D5185m		<1		
	Magnesium	ppm	ASTM D5185m	450	607		
	Calcium	ppm	ASTM D5185m		1265		
	Phosphorus	ppm	ASTM D5185m		1013		
	Zinc	ppm	ASTM D5185m		1198		
	Sulfur	ppm	ASTM D5185m		3212		
	Ovidation	Ales/ durant		. OE	12.0		

Oxidation

Visc @ 100°C cSt

13.2

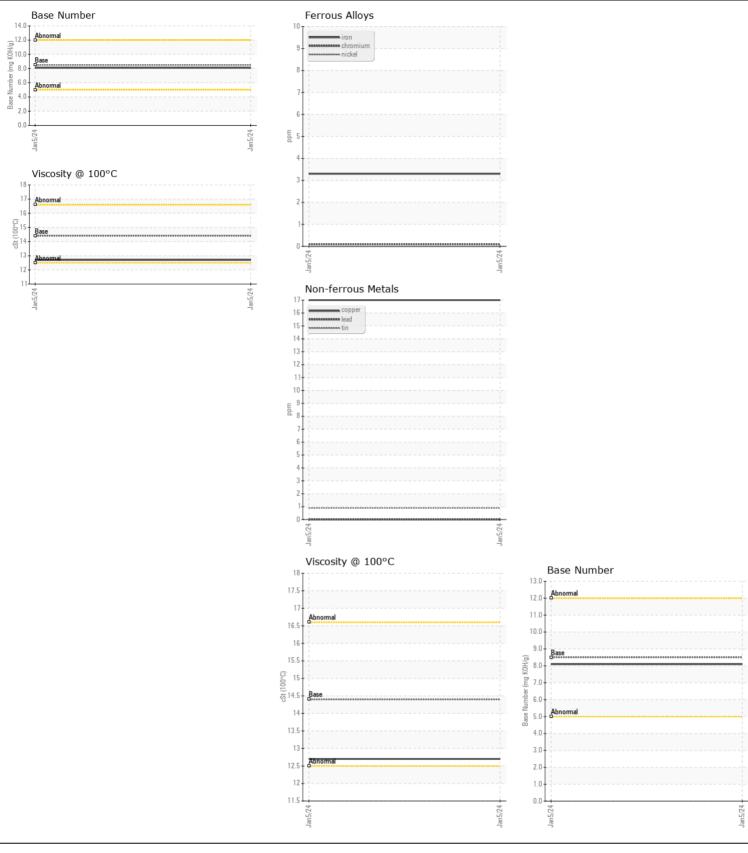
8.1

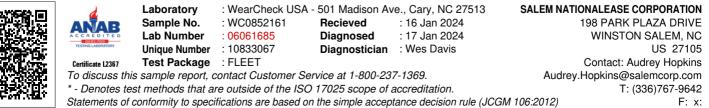
12.7

Abs/.1mm *ASTM D7414 >25

ASTM D445 14.4

Base Number (BN) mg KOH/g ASTM D2896 8.5





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