

## Machine Id **RT3220051** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

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		WC0929298		
	Sample Date		Client Info		17 Jun 2024		
	Machine Age	mls	Client Info		183550		
	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	ppm	ASTM D5185m		20		
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1		
	Nickel	ppm	ASTM D5185m	>4	0		
	Titanium	ppm	ASTM D5185m	-	0		
	Silver	ppm	ASTM D5185m		0		
	Aluminum	ppm	ASTM D5185m		5		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm	ASTM D5185m		16		
	Tin	ppm	ASTM D5185m	>15	<1		
	Vanadium	ppm	ASTM D5185m	NONE	0		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
CONTAMINATION	Silicon	ppm	ASTM D5185m	<u>\</u> 25	6		
CONTAMINATION	Potassium	ppm	ASTM D5185m		4		
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method		<1.0		
	Water		WC Method		NEG		
	Glycol		WC Method	20.L	NEG		
	Soot %	%	*ASTM D7844	>3	0.9		
	Nitration	Abs/cm	*ASTM D7624	>20	10.5		
	Sulfation	Abs/.1mm	*ASTM D7415		23.6		
	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		3		
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		15		
	Barium	ppm	ASTM D5185m		0		
	Molybdenum	ppm	ASTM D5185m	100	56		
	Manganese	ppm	ASTM D5185m	450	<1		
	Magnesium	ppm	ASTM D5185m		489		
	Calcium	ppm	ASTM D5185m		1777		
	Phosphorus	ppm	ASTM D5185m		984		
	Zinc	ppm	ASTM D5185m		1243		

Sulfur

Oxidation

Visc @ 100°C cSt

ppm ASTM D5185m 4250

Abs/.1mm \*ASTM D7414 >25

ASTM D445 14.4

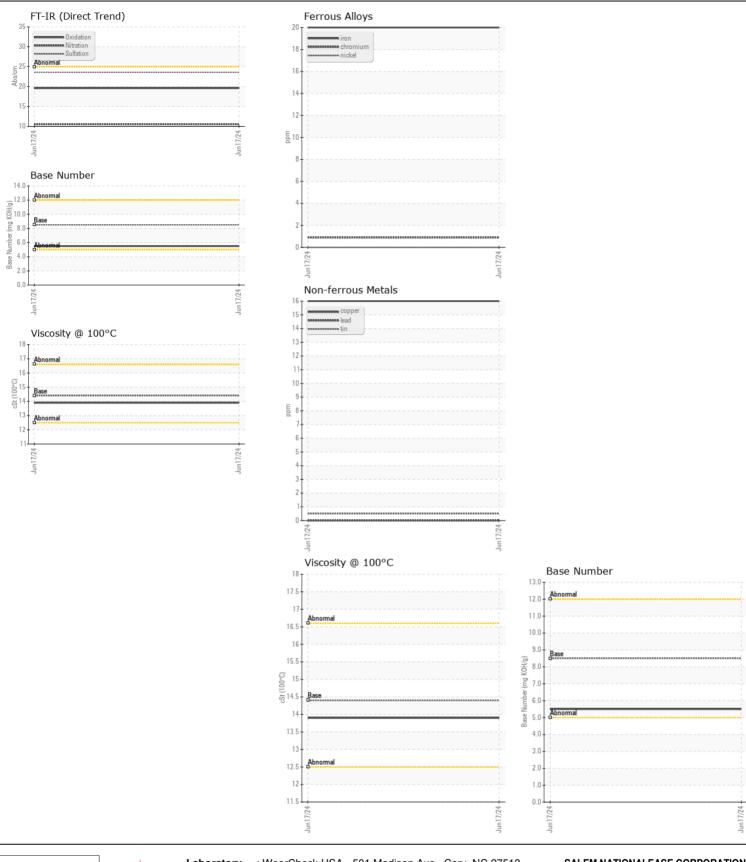
Base Number (BN) mg KOH/g ASTM D2896 8.5

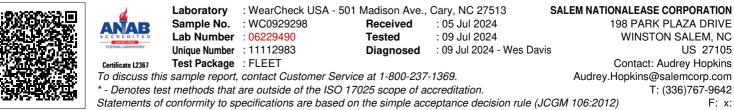
2990

19.6

5.5

13.9





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Contact/Location: Audrey Hopkins - SALWIN Page 2 of 2