

Machine Id HC2064 Component Gasoline Engine Fluid GASOLINE ENGINE OIL SAE 5W20 (--- 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		WC0903229		
	Sample Date		Client Info		29 Apr 2024		
	Machine Age	mls	Client Info		178699		
	Oil Age	mls	Client Info		10000		
	Filter Age	mls	Client Info		10000		
	Oil Changed		Client Info		Changed		
	Filter Changed		Client Info		Changed		
	Sample Status				NORMAL		
				150	40		
WEAR	Iron Chromium	ppm	ASTM D5185m		10		
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		<1		
	Titanium	ppm	ASTM D5185m ASTM D5185m	>0	<1		
	Silver	ppm		. 0	<1		
	Aluminum	ppm	ASTM D5185m ASTM D5185m		0 2		
	Lead	ppm	ASTM D5185m		0		
	Copper	ppm ppm	ASTM D5185m		0 <1		
	Tin	ppm	ASTM D5185m	>10	<1 <1		
	Vanadium	ppm	ASTM D5185m	210	<1		
	White Metal	scalar	*Visual	NONE	NONE		
	Yellow Metal	scalar	*Visual	NONE	NONE		
			Violai				
CONTAMINATION	Silicon	ppm	ASTM D5185m	>30	12		
	Potassium	ppm	ASTM D5185m	>20	2		
There is no indication of any contamination in the oil.	Fuel		WC Method	>4.0	<1.0		
	Water		WC Method	>0.2	NEG		
	Glycol		WC Method		NEG		
	Soot %	%	*ASTM D7844		0		
	Nitration	Abs/cm	*ASTM D7624	>20	11.1		
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.2		
	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	>50	<1		
I LOID CONDITION	Boron	ppm	ASTM D5185m		36		
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		2		
	Molybdenum	ppm	ASTM D5185m		83		
	Manganese	ppm	ASTM D5185m		15		
	Magnesium	ppm	ASTM D5185m	12	520		
	Calcium	ppm		2100	981		
	Phosphorus	ppm	ASTM D5185m		608		
	Zinc	ppm	ASTM D5185m	850	652		
	Sulfur	ppm	ASTM D5185m		2438		
		1.1.					

Oxidation

Visc @ 100°C cSt

Abs/.1mm *ASTM D7414 >25

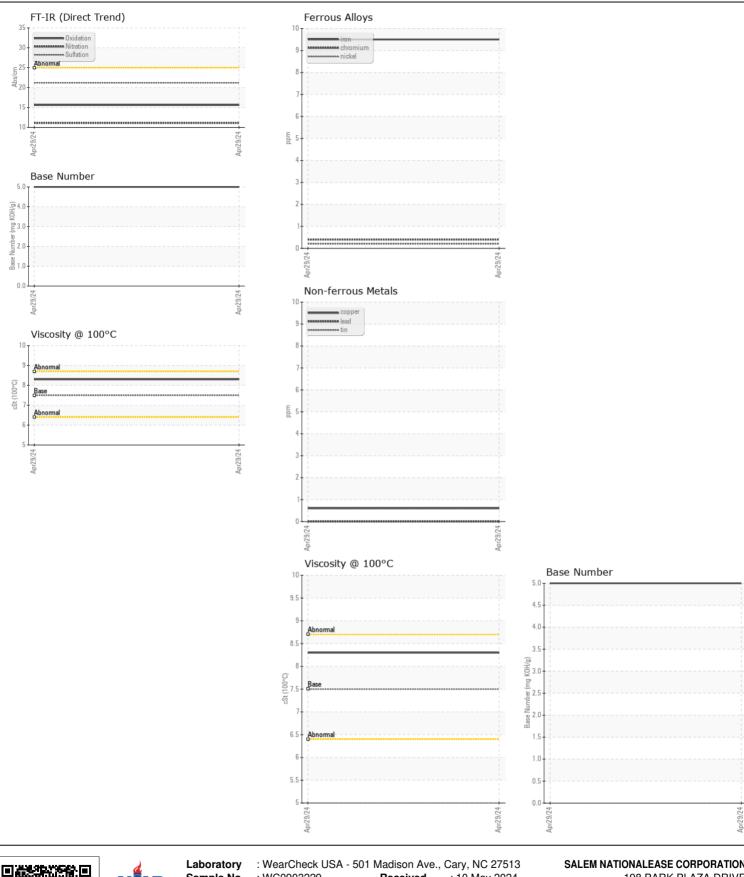
ASTM D445 7.5

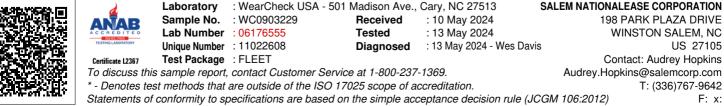
Base Number (BN) mg KOH/g ASTM D2896

15.6

5.0

8.3





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