

Machine Id **9250** 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		WC0904950	WC0904971	WC0904934
	Sample Date		Client Info		01 Jul 2024	30 Apr 2024	07 Feb 2024
	Machine Age	mls	Client Info		507490	489150	470270
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	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	Iron	ppm	ASTM D5185m	>100	6	11	10
	Chromium	ppm	ASTM D5185m		<1	<1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		0	<1	0
	Titanium	ppm	ASTM D5185m		0	<1	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m		3	4	3
	Lead	ppm	ASTM D5185m		0	<1	0
	Copper	ppm	ASTM D5185m		9	26	55
	Tin	ppm	ASTM D5185m		0	<1	0
	Vanadium	ppm	ASTM D5185m		0	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	6	6	4
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	1	7	12
	Fuel		WC Method	>5	<1.0	0.5	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.2	0.3	0.3
	Nitration	Abs/cm	*ASTM D7624	>20	7.1	7.1	7.4
	Sulfation	Abs/.1mm	*ASTM D7415	>30	20.5	20.0	21.2
	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	Sodium	ppm	ASTM D5185m	>158	2	1	6
	Boron	ppm	ASTM D5185m	250	214	213	141
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	0	0
	Molybdenum	ppm	ASTM D5185m		87	89	70
	Manganese	ppm	ASTM D5185m		0	<1	<1
	Magnesium	ppm	ASTM D5185m	450	433	444	684
	Calcium	ppm	ASTM D5185m	3000	1315	1276	1154
	Phosphorus	ppm	ASTM D5185m	1150	977	864	997
	Zinc	ppm	ASTM D5185m		1176	1082	1226
	Culture				0040	0104	0701

Sulfur

Oxidation

Visc @ 100°C cSt

ppm ASTM D5185m 4250

ASTM D445 14.4

Abs/.1mm *ASTM D7414 >25

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

14.1

6.0

12.2

3164 2791

15.6

7.3

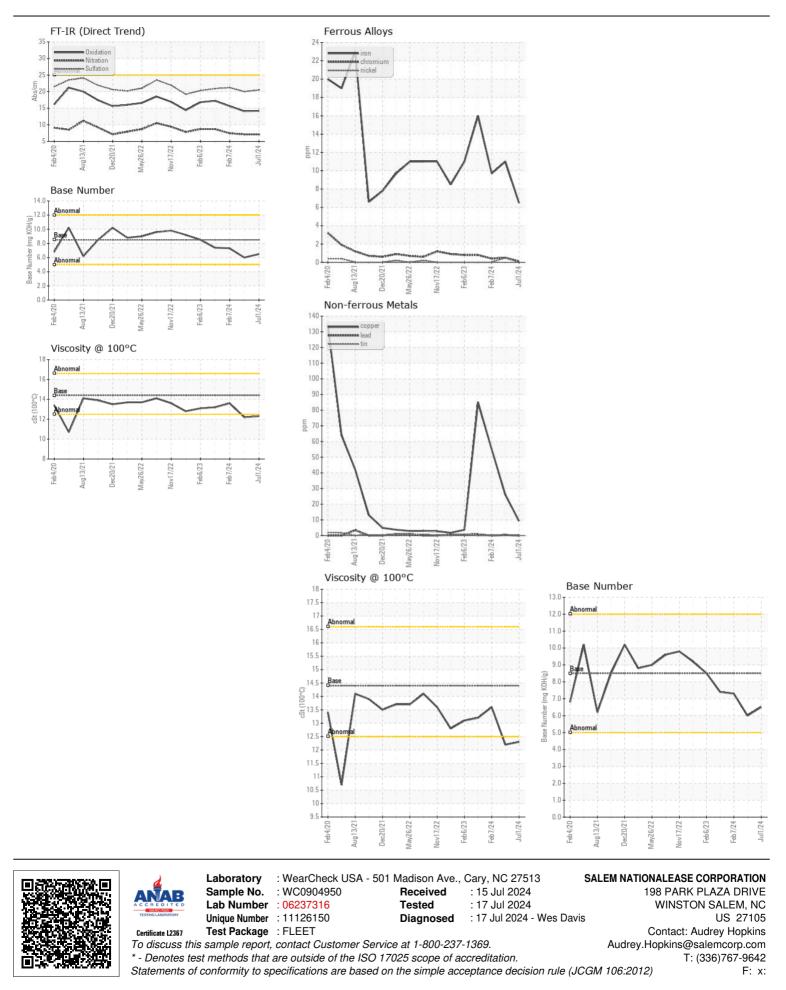
13.6

3649

14.2

6.5

12.3



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