

Machine Id **38537** 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		WC0875898	WC0875723	
	Sample Date		Client Info		21 Feb 2024	14 Dec 2023	
	Machine Age	mls	Client Info		57058	48836	
	Oil Age	mls	Client Info		20000	0	
	Filter Age	mls	Client Info		20000	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		Changed	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR	Iron	ppm	ASTM D5185m	>100	9	19	
WEAR	Chromium	ppm	ASTM D5185m		<1	<1	
Metal levels are typical for a new component breaking in.	Nickel	ppm	ASTM D5185m		0	<1	
	Titanium	ppm	ASTM D5185m	~7	0	0	
	Silver	ppm	ASTM D5185m	-3	ہ <1	0	
	Aluminum	ppm	ASTM D5185m		5	11	
	Lead		ASTM D5185m		0	4	
	Copper	ppm ppm	ASTM D5185m		153	452	
	Tin	ppm	ASTM D5185m		<1	1	
	Vanadium	ppm	ASTM D5185m	>15	0	<1	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
		Scalai	visuai			NONL	
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4	5	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m	>20	7	28	
	Fuel		WC Method	>5	<1.0	<1.0	
	Water		WC Method	>0.2	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844	>3	0.3	0.5	
	Nitration	Abs/cm	*ASTM D7624	>20	6.9	8.7	
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	20.5	
	Silt	scalar	*Visual	NONE	NONE	NONE	
	Debris	scalar	*Visual	NONE	NONE	NONE	
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
	Appearance	scalar	*Visual	NORML	NORML	NORML	
	Odor	scalar	*Visual	NORML	NORML	NORML	
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
FLUID CONDITION	Sodium	ppm	ASTM D5185m	<u>\158</u>	<1	1	
	Boron	ppm	ASTM D5185m		247	3	
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	
	Molybdenum	ppm	ASTM D5185m		72	84	
	Manganese	ppm	ASTM D5185m	100	<1	<1	
	Magnesium	ppm	ASTM D5185m	450	465	996	
	Calcium	ppm	ASTM D5185m		1225	1136	
	Phosphorus	ppm	ASTM D5185m		987	1013	
	Zinc	ppm	ASTM D5185m		1155	1233	
	Sulfur	ppm	ASTM D5185m		2840	2848	
	ounu	ppill		1200	2040	2040	

Oxidation

Visc @ 100°C cSt

Abs/.1mm *ASTM D7414 >25

ASTM D445 14.4

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

16.5

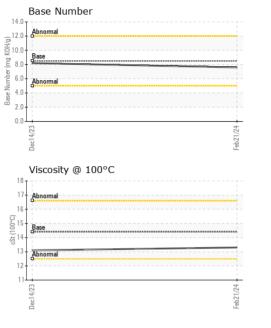
8.2

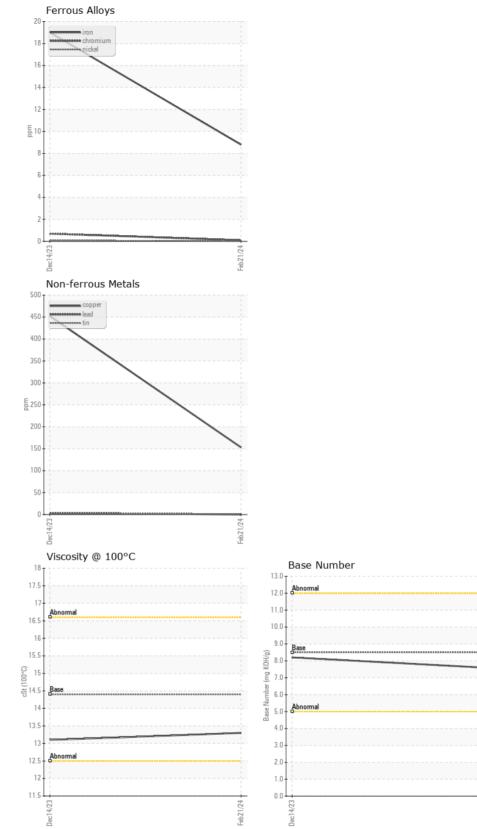
13.1

15.3

7.6

13.3







SALEM NATIONALEASE CORPORATION Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. Received : 29 Feb 2024 198 PARK PLAZA DRIVE : WC0875898 Lab Number : 06104966 :01 Mar 2024 WINSTON SALEM, NC Tested Unique Number : 10903196 : 01 Mar 2024 - Wes Davis US 27105 Diagnosed Test Package : FLEET **Contact: Audrey Hopkins** Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Audrey.Hopkins@salemcorp.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (336)767-9642 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x:

Contact/Location: Audrey Hopkins - SALWIN

Feb21/24