

Machine Id **14001** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- QTS)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2 WC0742496
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 Sample Date		Client Info		WC0841914	WC0841861	28 Jun 2023
		mla	Client Info		24 Jan 2024	20 Oct 2023	
	Machine Age	mls	Client Info		162639	145928	123182
	Oil Age	mls	Client Info		0	0	0
	Filter Age Oil Changed	mls	Client Info Client Info		0 Changed	0 Changed	0 Changed
	Filter Changed		Client Info		Changed Changed	Changed Changed	
	Sample Status		Cilent Into		Changed NORMAL	NORMAL	Changed NORMAL
						NORIVIAL	NORMAL
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m		6	6	7
	Chromium	ppm	ASTM D5185m		<1	<1	<1
	Nickel	ppm	ASTM D5185m	>4	<1	<1	<1
	Titanium	ppm	ASTM D5185m		0	0	<1
	Silver	ppm	ASTM D5185m		0	<1	<1
	Aluminum	ppm	ASTM D5185m		4	3	4
	Lead	ppm	ASTM D5185m		1	0	0
	Copper	ppm	ASTM D5185m	>330	12	17	19
	Tin	ppm	ASTM D5185m	>15	1	1	2
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon		ASTM D5185m	. 05	Л	4	A
CONTAMINATION	Potassium	ppm	ASTM D5185m		4 5	4 5	4
There is no indication of any contamination in the oil.	Fuel	ppm	WC Method			<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.2	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	~3	0.3	0.4	0.4
	Nitration	Abs/cm	*ASTM D7624	>20	6.8	7.8	7.6
	Sulfation	Abs/.1mm	*ASTM D7415		19.3	20.1	20.4
	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	0	1
	Boron	ppm	ASTM D5185m	250	6	4	2
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		65	60	70
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m	450	961	941	1141
	Calcium	ppm	ASTM D5185m	3000	1066	1028	1238
	Phosphorus	ppm	ASTM D5185m	1150	1080	992	1178
	Zinc	ppm	ASTM D5185m	1350	1284	1238	1461

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

2907

15.8

8.9

13.5

3138

14.4

9.2

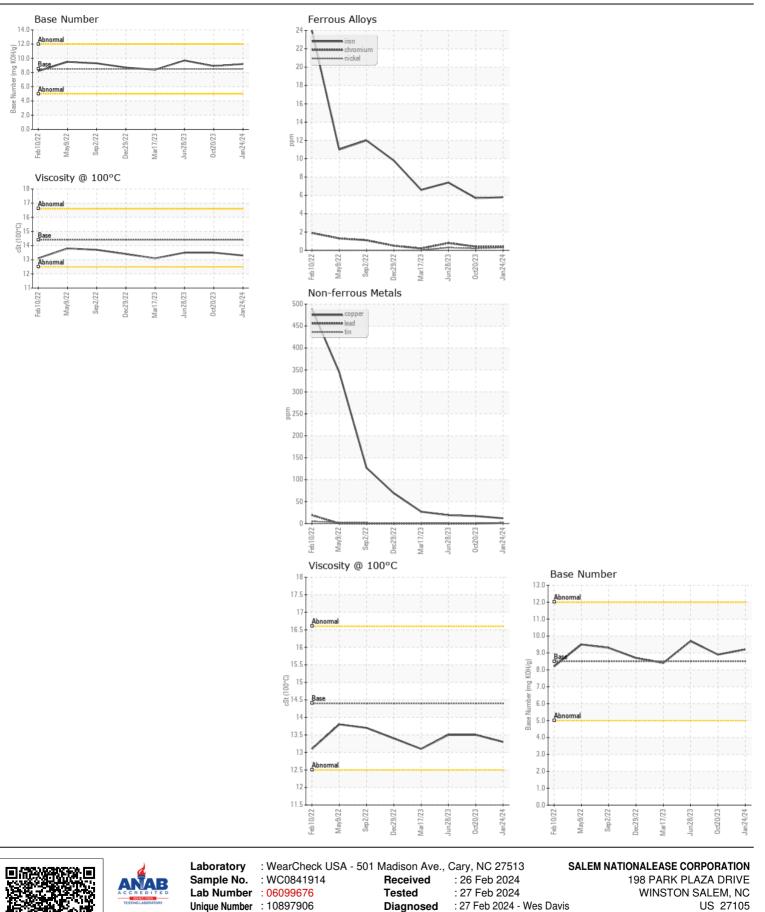
13.3

4368

15.6

9.7

13.5



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. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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