

Machine Id **10490** 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		WC0879868	WC0845596	WC0845628
	Sample Date		Client Info		30 Apr 2024	09 Feb 2024	21 Nov 2023
	Machine Age	mls	Client Info		494843	474893	453167
brand, type, and viscosity of the on on your next sample.	Oil Age	mls	Client Info		0	25000	0
	Filter Age	mls	Client Info		0	25000	0
	Oil Changed		Client Info		N/A	Changed	N/A
	Filter Changed		Client Info		N/A	Changed	N/A
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	25	23	15
	Chromium	ppm	ASTM D5185m	>20	1	<1	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	<1	0	<1
	Titanium	ppm	ASTM D5185m		<1	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	10	13	7
	Lead	ppm	ASTM D5185m	>40	<1	0	0
	Copper	ppm	ASTM D5185m	>330	4	5	2
	Tin	ppm	ASTM D5185m	>15	<1	0	<1
	Vanadium	ppm	ASTM D5185m		<1	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m		7	6	5
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		4	1	2
	Fuel		WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol	0/	WC Method	0	NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0.5	0.6	0.7
	Nitration	Abs/cm	*ASTM D7624	>20	8.8	8.9	10.1
	Sulfation	Abs/.1mm	*ASTM D7415		24.2	24.4	23.3
	Silt Debris	scalar	*Visual	NONE	NONE NONE	NONE NONE	NONE
	Sand/Dirt	scalar	*Visual *Visual	NONE NONE	NONE	NONE	NONE
		scalar	*Visual	NORML	NORML	NORML	NORML
	Appearance Odor	scalar scalar	*Visual	NORML	NORML	NORML	NORML
	Emulsified Water		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		<1	2	<1
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		203	146	5
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	100	91	93	67
	Manganese	ppm	ASTM D5185m	450	<1	<1	<1
	Magnesium	ppm	ASTM D5185m		383	492	976
	Calcium	ppm	ASTM D5185m		1330	1407	1153
	Phosphorus	ppm	ASTM D5185m		992	942	1126
	Zinc	ppm	ASTM D5185m	1350	1224	1218	1386

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

2852

20.2

5.5

13.9

3087

20.3

6.1

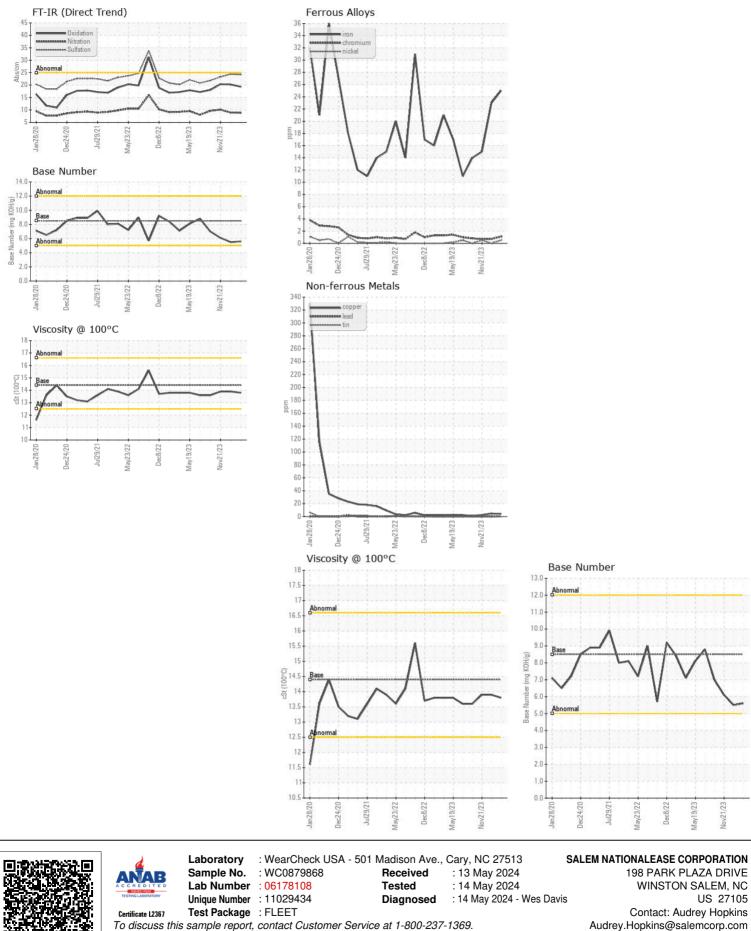
13.9

3322

19.3

5.6

13.8



To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)

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

T: (336)767-9642

F: x: