

Machine Id **BB12060** Componen **Diesel Engine** DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0919706	WC0852312	WC0801234
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 Date		Client Info		08 May 2024	22 Nov 2023	21 Jul 2023
	Machine Age	mls	Client Info		142864	0	0
	Oil Age	mls	Client Info		0	0	25000
	Filter Age	mls	Client Info		0	0	25000
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	ABNORMAL	ABNORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	46	76	89
	Chromium	ppm	ASTM D5185m	>20	2	1	2
All component wear rates are normal.	Nickel	ppm	ASTM D5185m		1	1	<1
	Titanium	ppm	ASTM D5185m		<1	<1	0
	Silver	ppm	ASTM D5185m	>3	<1	0	0
	Aluminum	ppm	ASTM D5185m	>20	13	4 1	<u> </u>
	Lead	ppm	ASTM D5185m	>40	6	2	1
	Copper	ppm	ASTM D5185m	>330	15	4	4
	Tin	ppm	ASTM D5185m	>15	3	<1	<1
	Vanadium	ppm	ASTM D5185m		<1	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	13	6	7
	Potassium	ppm	ASTM D5185m	>20	10	<1	<1
There is no indication of any contamination in the oil.	Fuel		WC Method	>5	<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	2	1.6	1.9
	Nitration	Abs/cm	*ASTM D7624	>20	8.4	9.9	11.3
	Sulfation	Abs/.1mm	*ASTM D7415	>30	22.4	22.8	24.7
	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	9	1	<1
	Boron	ppm	ASTM D5185m		<1	4	4
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		<1	0	0
	Molybdenum	ppm	ASTM D5185m		65	67	69
	Manganese	ppm	ASTM D5185m		2	<1	1
	Magnesium	ppm	ASTM D5185m	450	956	1007	1045
	Calcium	ppm	ASTM D5185m	3000	1082	1126	1221
	Phosphorus	ppm	ASTM D5185m		1093	1152	1118
	Zinc	ppm	ASTM D5185m	1350	1269	1354	1366
	Sulfur	ppm	ASTM D5185m		3858	3475	4017
	Outidation	Al / d		05	44.4	477	10.0

Oxidation

Visc @ 100°C cSt

17.7

9.9

12.8

19.3 9.7

13.0

14.4

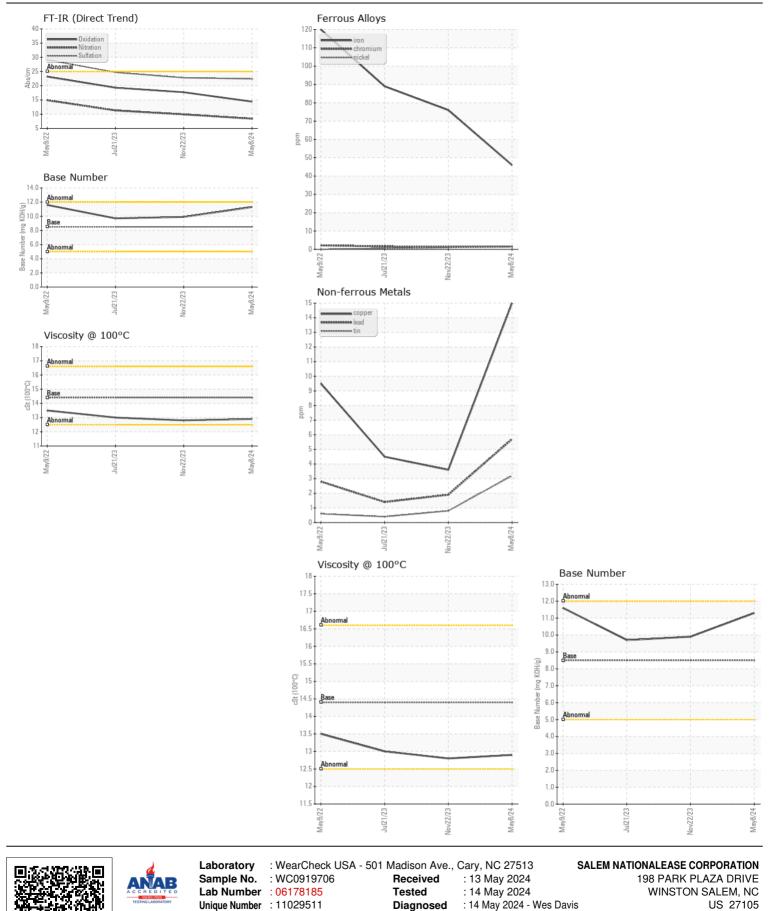
11.3

12.9

Abs/.1mm *ASTM D7414 >25

ASTM D445 14.4

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



Test Package : FLEET 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)

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

Contact: Audrey Hopkins

T: (336)767-9642

F: x: