

## Machine Id 887 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		WC0919685	WC0801239	WC0680227
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		12 Apr 2024	24 Jul 2023	08 Jun 2022
	Machine Age	mls	Client Info		0	0	80042
	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	8	13	15
	Chromium	ppm	ASTM D5185m	>20	1	<1	2
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	<1	0	<1
	Titanium	ppm	ASTM D5185m		<1	0	<1
	Silver	ppm	ASTM D5185m	>3	<1	0	0
	Aluminum	ppm	ASTM D5185m	>20	5	4	15
	Lead	ppm	ASTM D5185m	>40	<1	0	1
	Copper	ppm	ASTM D5185m	>330	<1	0	2
	Tin	ppm	ASTM D5185m	>15	<1	<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	6	4	7
	Potassium	ppm	ASTM D5185m	>20	7	8	29
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	0.3	0.3	0.4
	Nitration	Abs/cm	*ASTM D7624	>20	7.1	7.3	8.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.9	19.4	20.5
	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	2
	Boron	ppm	ASTM D5185m		257	10	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	100	79	72	60
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m	450	461	986	953
	Calcium	ppm	ASTM D5185m	3000	1253	1124	1096
	Phosphorus	ppm	ASTM D5185m	1150	909	1050	1020
	Zinc	ppm	ASTM D5185m		1177	1299	1257
	Sulfur	ppm	ASTM D5185m	4250	2962	4001	3189
	Outidation	Ale - / document	****	05	100	447	45.0

Oxidation

Visc @ 100°C cSt

14.7

8.6

12.6

15.8

9.2

13.1

16.0

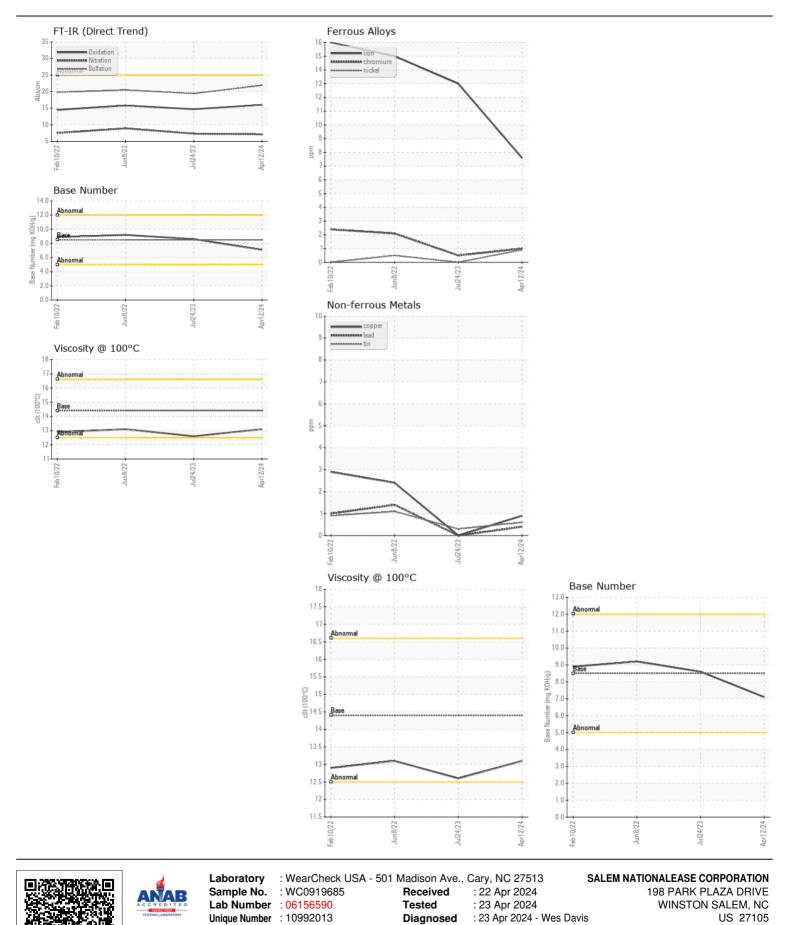
7.1

13.1

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)

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