

Machine Id **4484L** 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		IL06175096	IL0034327	IL0032487
	Sample Date		Client Info		01 May 2024	20 Feb 2024	07 Nov 2023
	Machine Age	hrs	Client Info		3	227523	208190
	Oil Age	hrs	Client Info		0	15000	15000
	Filter Age	hrs	Client Info		0	15000	15000
	Oil Changed		Client Info		N/A	Changed	Changed
	Filter Changed		Client Info		N/A	Changed	Changed
	Sample Status				NORMAL	ABNORMAL	NORMAL
WEAR	Iron	ppm	ASTM D5185m	>100	51	1 24	44
Metal levels are typical for a new component breaking in.	Chromium	ppm	ASTM D5185m		1	3	<1
	Nickel	ppm	ASTM D5185m		0	1	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m		6	16	7
	Lead	ppm	ASTM D5185m		<1	<1	0
	Copper	ppm	ASTM D5185m		4	11	4
	Tin	ppm	ASTM D5185m	>15	0	0	<1
	Vanadium	ppm	ASTM D5185m		0	0	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m		6	11	8
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		6	6	4
	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	1.7	0.7
	Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415	>20	13.3 28.1	25.9 48.1	15.7 31.5
	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		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m		3	4	3
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		105	2	0
	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m	100	40	109	76
	Manganese	ppm	ASTM D5185m	1 - 1	<1	1	<1
	Magnesium	ppm	ASTM D5185m		544	1880	1245
	Calcium	ppm	ASTM D5185m		2571	2075	1440
	Phosphorus	ppm	ASTM D5185m		1261	1803	1337
	Zinc	ppm	ASTM D5185m		1514	2280	1594
	Sulfur	ppm	ASTM D5185m	4250	4111	4043	3337

Oxidation

Visc @ 100°C cSt

Abs/.1mm *ASTM D7414 >25

ASTM D445 14.4

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

63.3

5.4

19.2

36.9

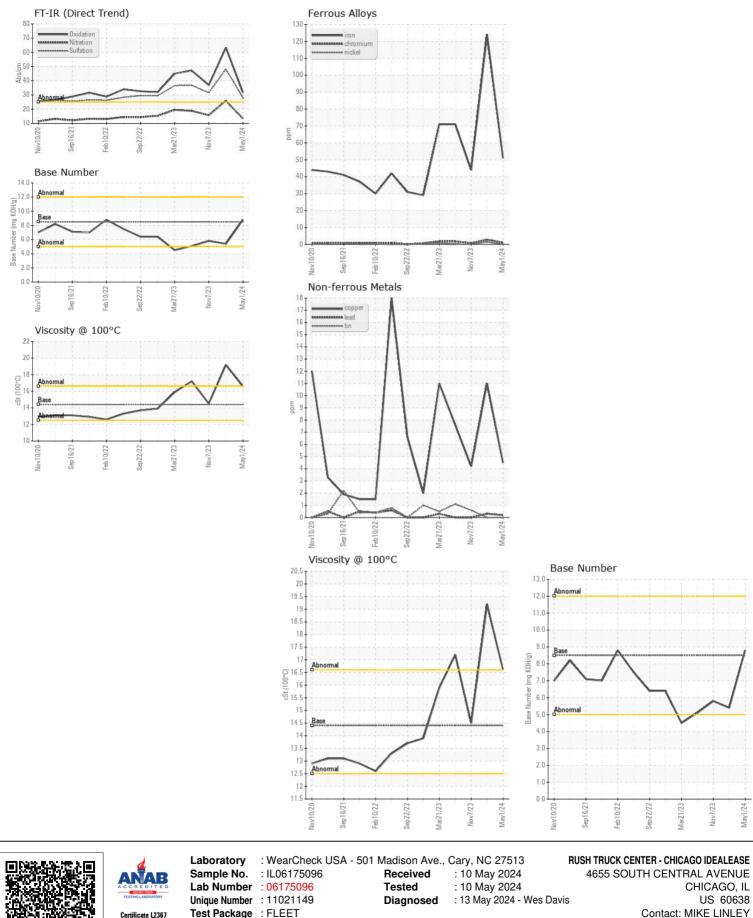
5.8

14.5

31.7

8.8

16.6



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)

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