

Machine Id **1709** 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.	Sample Number		Client Info		WC0897887	WC0894005	WC0893978
	Sample Date		Client Info		29 Apr 2024	29 Mar 2024	29 Feb 2024
	Machine Age	mls	Client Info		0	0	0
	Oil Age	mls	Client Info		0	0	0
	Filter Age	mls	Client Info		0	0	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 All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	10	7	9
	Chromium	ppm	ASTM D5185m	>20	<1	0	0
	Nickel	ppm	ASTM D5185m	>4	<1	0	0
	Titanium	ppm	ASTM D5185m		<1	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	2	1	<1
	Lead	ppm	ASTM D5185m		<1	0	0
	Copper	ppm	ASTM D5185m	>330	93	66	70
	Tin	ppm	ASTM D5185m		<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	15	8	4
	Potassium	ppm	ASTM D5185m		3	0	0
There is no indication of any contamination in the oil.	Fuel	ppiii	WC Method		<1.0	<1.0	<1.0
	Water		WC Method		NEG	NEG	NEG
	Glycol		WC Method	20.2	NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	0.3	0.3	0.3
	Nitration	Abs/cm	*ASTM D7624	>20	8.1	7.8	7.8
	Sulfation	Abs/.1mm	*ASTM D7415		22.9	22.7	22.7
	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		*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	<u>_158</u>	2	3	3
	Boron		ASTM D5185m		0	2	0
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 ppm	ASTM D5185m		2	0	0
	Molybdenum	ppm	ASTM D5185m		59	56	57
	Manganese	ppm	ASTM D5185m	100	-59 <1	<1	0
	Magnesium		ASTM D5185m	150	876	914	1021
	Calcium	ppm	ASTM D5185m		1090	1015	1021
		ppm	ASTM D5185m ASTM D5185m			990	1087
	Phosphorus	ppm			1027		
	Zinc	ppm	ASTM D5185m		1165	1218	1261
	Sulfur	ppm	ASTM D5185m		2952	3208	3045
	Oxidation	Abs/.1mm	*ASTM D7414		23.2	23.5	22.8
	Base Number (BN)	mg KUH/g	ASTM D2896	0.0	6.9	6.5	6.9

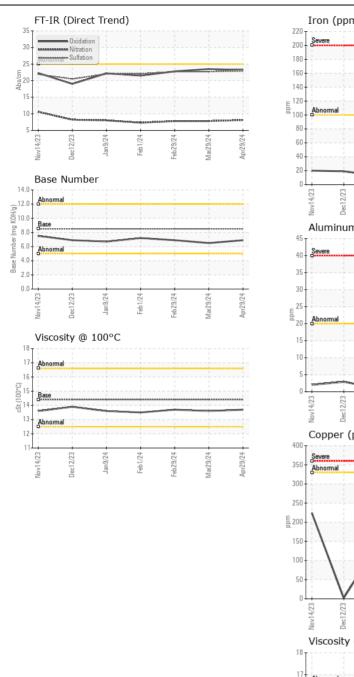
Visc @ 100°C cSt

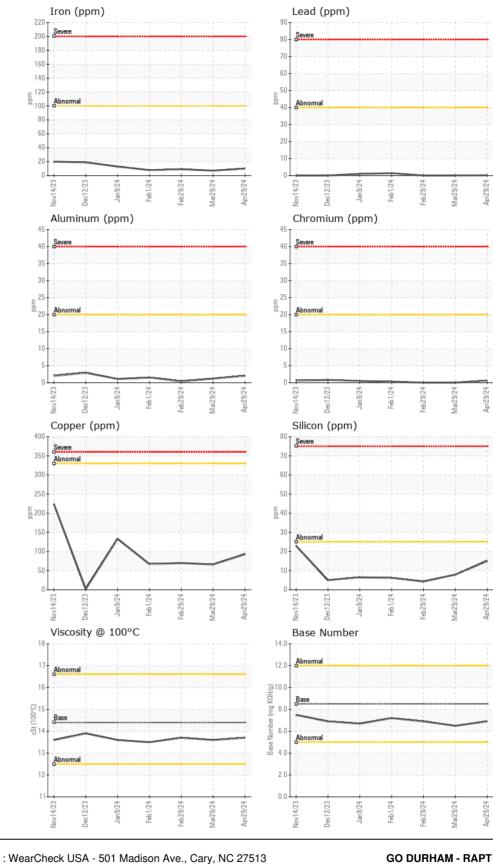
ASTM D445 14.4

13.6

13.7

13.7







Lab Number : 06176790 Tested : 14 May 2024 : 14 May 2024 - Wes Davis Unique Number : 11022843 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: Robert Iosiniecki Certificate L2367 Robert.losiniecki@ratpdev.com 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)

Received

: 13 May 2024

Laboratory

Sample No.

: WC0897887

Contact/Location: Robert Iosiniecki - GODDUR Page 2 of 2

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