

Machine Id **A-405** Component **Diesel Engine** Fluid **DURAMAX 15W40 (--- QTS)**

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.	Sample Number		Client Info		DC0035299	DC0024231	DC0029726
	Sample Date		Client Info		16 Mar 2024	11 Nov 2023	01 Aug 2023
	Machine Age	hrs	Client Info		9433	8516	7829
	Oil Age	hrs	Client Info		917	687	780
	Filter Age	hrs	Client Info		917	687	780
	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	12	15	40
	Chromium	ppm	ASTM D5185m	>20	<1	0	<1
All component wear rates are normal.	Nickel	ppm	ASTM D5185m	>4	0	0	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	2	2	5
	Lead	ppm	ASTM D5185m	>40	2	2	4
	Copper	ppm	ASTM D5185m	>330	<1	2	2
	Tin	ppm	ASTM D5185m	>15	<1	1	2
	Vanadium	ppm	ASTM D5185m		0	0	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	4	7	7
	Potassium	ppm	ASTM D5185m	>20	4	4	4
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	0.4	0.3	0.5
	Nitration	Abs/cm	*ASTM D7624	>20	9.1	8.1	11.0
	Sulfation	Abs/.1mm	*ASTM D7415	>30	24.6	21.6	29.3
	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		6	8	11
	Boron	ppm	ASTM D5185m		2	5	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	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		4	3	2
	Manganese	ppm	ASTM D5185m		0	<1	<1
	Magnesium	ppm	ASTM D5185m		57	53	43
	Calcium	ppm	ASTM D5185m		2247	2300	2532
	Phosphorus	ppm	ASTM D5185m		781	871	944
	Zinc	ppm	ASTM D5185m		1088	1074	1174
	Sulfur	ppm	ASTM D5185m		3321	4607	4358
	Oxidation	Abs/.1mm	*ASTM D7414	>25	14.6	13.6	22.4
	Deer North and (DNI)				4.0	F 00	0.0

Base Number (BN) mg KOH/g ASTM D2896

ASTM D445

Visc @ 100°C cSt

NORMAL

NORMAL

NORMAL

WEAR

CONTAMINATION FLUID CONDITION

5.09

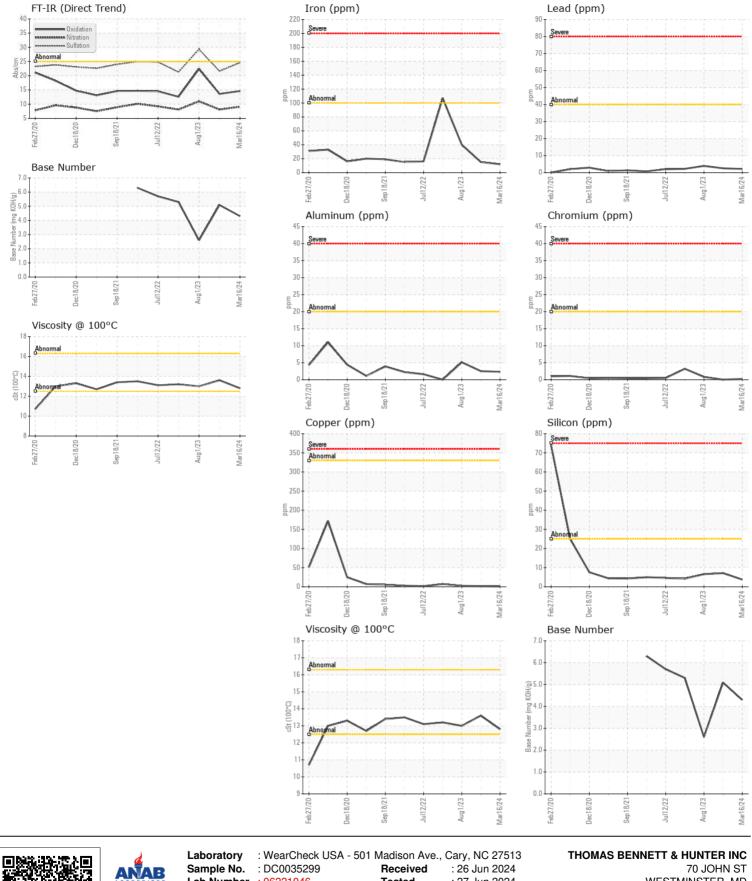
13.6

2.6

13.0

4.3

12.8



Lab Number : 06221046 Tested WESTMINSTER, MD : 27 Jun 2024 : 27 Jun 2024 - Wes Davis US 21157 Unique Number : 11099243 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: JOE STEPHAN Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. jstephan@tbhconcrete.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (410)848-9030 F: (410)848-9032 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: JOE STEPHAN - THOWESMD Page 2 of 2