

Machine Id **A-385** 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		DC0029820	DC0024230	DC0025546
	Sample Date		Client Info		08 Mar 2024	23 Sep 2023	09 May 2023
	Machine Age	hrs	Client Info		12964	12334	11567
	Oil Age	hrs	Client Info		630	767	840
	Filter Age	hrs	Client Info		630	767	840
	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	13	18	18
All component wear rates are normal.	Chromium	ppm	ASTM D5185m		<1	1	<1
	Nickel	ppm	ASTM D5185m		<1	<1	0
	Titanium	ppm	ASTM D5185m		0	0	0
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	3	9	1
	Lead	ppm	ASTM D5185m	>40	<1	1	0
	Copper	ppm	ASTM D5185m	>330	0	2	4
	Tin	ppm	ASTM D5185m	>15	<1	<1	0
	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	7	10	6
	Potassium	ppm	ASTM D5185m	>20	2	4	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	0.6	0.7	0.7
	Nitration	Abs/cm	*ASTM D7624	>20	8.9	9.6	9.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	21.8	23.5	24.1
	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		2	2	2
	Boron	ppm	ASTM D5185m		<1	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	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		2	5	3
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		60	70	55
	Calcium	ppm	ASTM D5185m		2460	2341	2437
	Phosphorus	ppm	ASTM D5185m		961	889	933
	Zinc	ppm	ASTM D5185m		1159	1104	1129
	Sulfur	ppm	ASTM D5185m	0.5	4578	4047	4425
	Oxidation	Abs/.1mm	*ASTM D7414	>25	12.6	14.3	14.5

Base Number (BN) mg KOH/g ASTM D2896

ASTM D445

Visc @ 100°C cSt

5.76

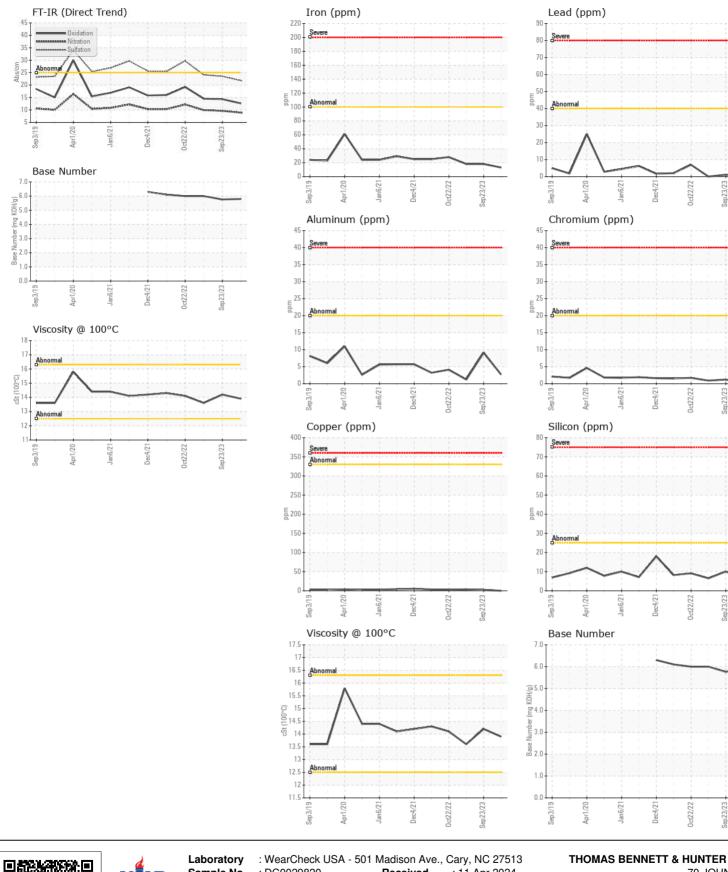
14.2

6.0

13.6

5.8

13.9



THOMAS BENNETT & HUNTER INC Sample No. : DC0029820 Received 70 JOHN ST : 11 Apr 2024 Lab Number : 06146433 WESTMINSTER, MD Tested : 12 Apr 2024 : 12 Apr 2024 - Wes Davis US 21157 Unique Number : 10976511 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 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (410)848-9032