

Machine Id **620** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number	00111	Client Info	Ennorton	WC0745784	WC0745775	WC0609079
Resample at the next service interval to monitor. Please specify the component make and model with your next sample.	Sample Date		Client Info		17 Apr 2024	30 Sep 2023	24 Jun 2023
	Machine Age	hrs	Client Info		0	3745	3167
	Oil Age	hrs	Client Info		0	0	0
	Filter Age	hrs	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	80	66	75
All component wear rates are normal.	Chromium	ppm	ASTM D5185m	>20	6	5	4
	Nickel	ppm	ASTM D5185m	>4	1	<1	<1
	Titanium	ppm	ASTM D5185m		<1	<1	<1
	Silver	ppm	ASTM D5185m	>3	0	0	0
	Aluminum	ppm	ASTM D5185m	>20	19	13	11
	Lead	ppm	ASTM D5185m	>40	<1	1	<1
	Copper	ppm	ASTM D5185m	>330	13	6	6
	Tin	ppm	ASTM D5185m	>15	3	1	1
	Vanadium	ppm	ASTM D5185m		<1	<1	<1
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
CONTAMINATION	Silicon	ppm	ASTM D5185m	>25	16	11	7
	Potassium	ppm	ASTM D5185m	>20	17	18	14
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	%	*ASTM D2982		NEG	NEG	NEG
	Soot %	%	*ASTM D7844	>3	1	0.7	0.6
	Nitration	Abs/cm	*ASTM D7624	>20	12.5	10.1	9.9
	Sulfation	Abs/.1mm	*ASTM D7415	>30	24.0	20.6	19.8
	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 The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Sodium	ppm	ASTM D5185m		0	2	2
	Boron	ppm	ASTM D5185m	250	0	3	2
	Barium	ppm	ASTM D5185m		2	0	0
	Molybdenum	ppm	ASTM D5185m	100	75	67	66
	Manganese	ppm	ASTM D5185m		1	1	1
	Magnesium	ppm	ASTM D5185m		1086	1015	1032
	Calcium	ppm	ASTM D5185m		1295	1214	1180
	Phosphorus	ppm	ASTM D5185m		1286	1094	1099
	Zinc	ppm	ASTM D5185m		1468	1360	1363
	Sulfur	ppm	ASTM D5185m		3359	3040	3090
	Oxidation	Abs/.1mm	*ASTM D7414	>25	21.2	17.0	16.6

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

ASTM D445 14.4

Visc @ 100°C cSt

9.0

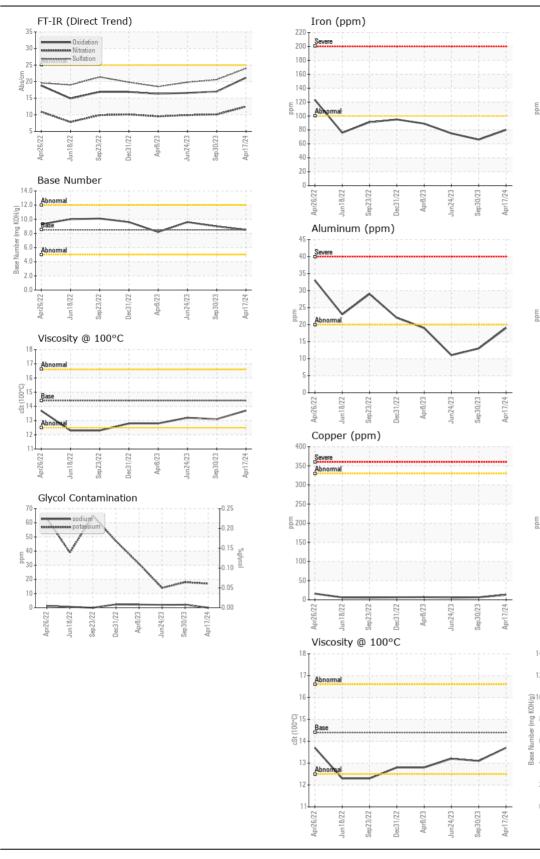
13.1

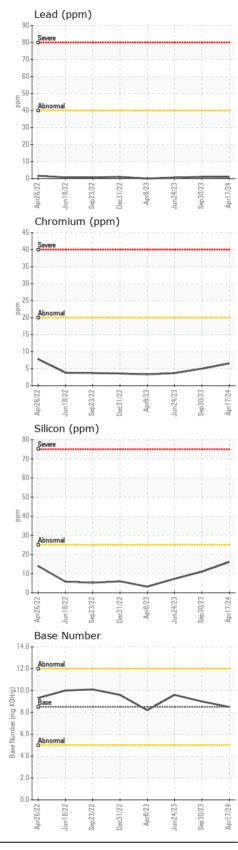
9.6

13.2

8.5

13.7





Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 HENRY FLIGELTAUB CO Sample No. : WC0745784 Received 1719 W LOUISIANA ST : 10 May 2024 Lab Number : 06176582 EVANSVILLE, IN Tested : 15 May 2024 : 15 May 2024 - Sean Felton US 47710 Unique Number : 11022635 Diagnosed Test Package : MOBCE (Additional Tests: Glycol, TBN) Contact: DON MACLEOD Certificate L2367 dmacleod@fligeltaub.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. T: (812)423-6219 F: (812)425-5140

Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Contact/Location: DON MACLEOD - HENEVA Page 2 of 2