

WEAR	
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id **70915** Component **Diesel Engine** Fluid **DIESEL ENGINE OIL SAE 15W40 (--- GAL)**

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
TEOOMMENDATION	Sample Number	0.0111	Client Info		DC0036045		DC0028185
Resample at the next service interval to monitor. Please specify the	Sample Date		Client Info		20 Feb 2024		18 Jul 2023
component make and model with your next sample.	Machine Age	hrs	Client Info		1761	1492	1211
	Oil Age	hrs	Client Info		250	250	250
	Filter Age	hrs	Client Info		0	250	250
	Oil Changed		Client Info		Changed	Changed	Changed
	Filter Changed		Client Info		Changed	Changed	Changed
	Sample Status				NORMAL	NORMAL	NORMAL
WEAR	Iron		ASTM D5185m	>100	14	8	11
All component wear rates are normal.	Chromium	ppm ppm	ASTM D5185m		<1	1	<1
	Nickel	ppm	ASTM D5185m		0	<1	<1
	Titanium	ppm	ASTM D5185m	24	0	<1	<1
	Silver	ppm	ASTM D5185m	-3	0	0	<1
	Aluminum	ppm	ASTM D5185m		6	5	6
	Lead	ppm	ASTM D5185m		0	<1	<1
	Copper	ppm	ASTM D5185m		1	2	2
	Tin	ppm	ASTM D5185m		<1	1	<1
	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		5	5	5
There is no indication of any contamination in the cil	Potassium	ppm	ASTM D5185m	>20	2	4	4
There is no indication of any contamination in the oil.	Fuel		WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.2	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0.2	0.1	0.1
	Nitration	Abs/cm	*ASTM D7624	>20	6.8	6.6	6.6
	Sulfation	Abs/.1mm	*ASTM D7415		16.9	16.4	16.5
	Silt	scalar	*Visual	NONE	NONE	NONE	NONE
	Debris	scalar	*Visual	NONE	NONE	NONE	NONE
	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
	Appearance Odor	scalar	*Visual	NORML NORML	NORML	NORML	NORML
	Emulsified Water	scalar	*Visual	>0.2	NORML NEG	NORML NEG	NEG
		Scalal	*Visual	>0.2	NEG	NEG	NEG
FLUID CONDITION	Sodium	ppm	ASTM D5185m	>158	1	3	0
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	250	<1	2	2
	Barium	ppm	ASTM D5185m	10	0	0	2
	Molybdenum	ppm	ASTM D5185m	100	2	1	4
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		47	42	49
	Calcium	ppm	ASTM D5185m		2341	2208	3655
	Phosphorus	ppm	ASTM D5185m	1150	951	925	1349
	Zinc	ppm	ASTM D5185m		1101	1112	1599
	Sulfur	ppm	ASTM D5185m		3764	3865	6278
	Oxidation	Abs/.1mm	*ASTM D7414	>25	9.9	9.6	9.5

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

ASTM D445 14.4

Visc @ 100°C cSt

7.0

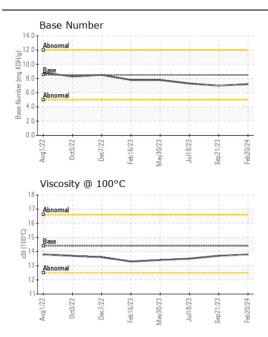
13.7

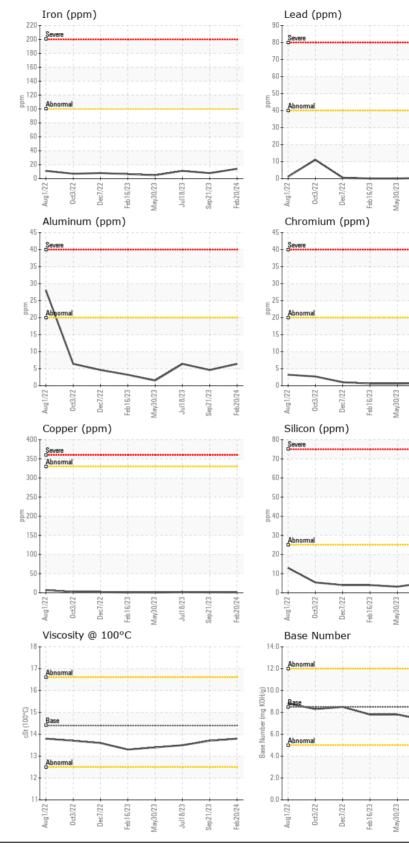
7.2

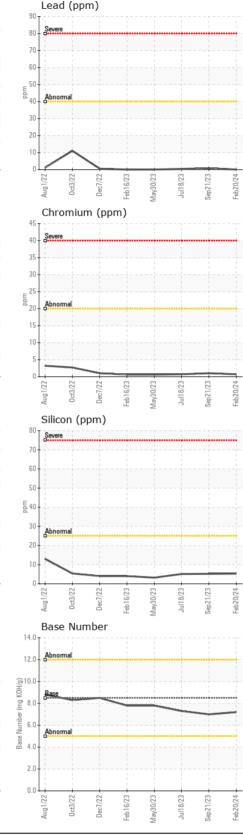
13.8

7.3

13.5







FRANCIS O DAY Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 : DC0036045 Received : 28 Feb 2024 14900 SOUTHLAWN LN Sample No. ROCKVILLE, MD Lab Number : 06103476 :01 Mar 2024 Tested Unique Number : 10901706 : 01 Mar 2024 - Wes Davis US 20850 Diagnosed Test Package : MOB 1 (Additional Tests: TBN) Contact: JAMIE FORESTER Certificate L2367 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:

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

Contact/Location: JAMIE FORESTER - FRAROCDC