

Limit/Abn Current

Toet

Mathad

History

History?

Machine Id 46625 Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

Metal levels are typical for a new component breaking in.

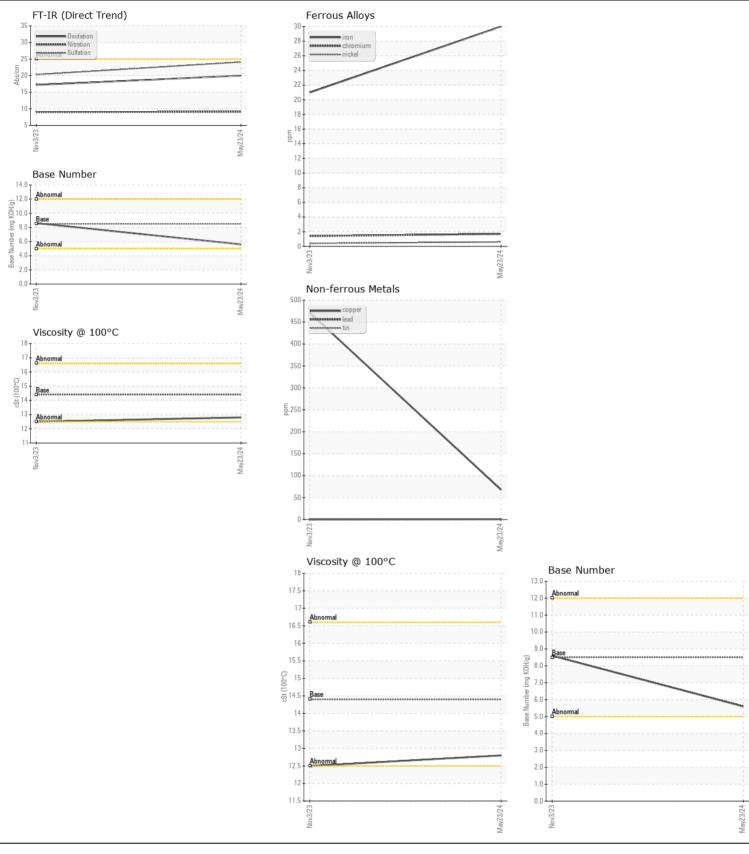
CONTAMINATION

Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0936290	WC0869192	
Sample Date		Client Info		23 May 2024	03 Nov 2023	
Machine Age	mls	Client Info		72216	28950	
Oil Age	mls	Client Info		0	25000	
Filter Age	mls	Client Info		0	25000	
Oil Changed		Client Info		Changed	Changed	
Filter Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
Iron	ppm	ASTM D5185m	>100	30	21	
Chromium	ppm	ASTM D5185m	>20	2	1	
Nickel	ppm	ASTM D5185m	>4	<1	<1	
Titanium	ppm	ASTM D5185m		<1	0	
Silver	ppm	ASTM D5185m	>3	1	<1	
Aluminum	ppm	ASTM D5185m	>20	11	17	
Lead	ppm	ASTM D5185m	>40	<1	0	
Copper	ppm	ASTM D5185m	>330	68	471	
Tin	ppm	ASTM D5185m	>15	1	2	
Vanadium	ppm	ASTM D5185m		<1	0	
White Metal	scalar	*Visual	NONE	NONE	NONE	
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
Silicon	ppm	ASTM D5185m	>25	8	4	
Potassium	ppm	ASTM D5185m	>20	25	44	
Fuel	PPIII	WC Method	>5	<1.0	<1.0	
Water		WC Method	>0.2	NEG	NEG	
Glycol		WC Method	20.2	NEG	NEG	
Soot %	%	*ASTM D7844	>3	0.6	0.4	
Nitration	Abs/cm	*ASTM D7624	>20	9.1	9.0	
Sulfation	Abs/.1mm	*ASTM D7415	>30	24.1	20.3	
Silt	scalar	*Visual	NONE	NONE	NONE	
Debris	scalar	*Visual	NONE	NONE	NONE	
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	
Appearance	scalar	*Visual	NORML	NORML	NORML	
Odor	scalar	*Visual	NORML	NORML	NORML	
Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	
Sodium	ppm	ASTM D5185m	>158	<1	1	
Boron	ppm	ASTM D5185m	250	146	7	
Barium	ppm	ASTM D5185m	10	0	0	
Molybdenum	ppm	ASTM D5185m	100	95	62	
Manganese	ppm	ASTM D5185m		1	1	
Magnesium	ppm	ASTM D5185m	450	390	933	
Calcium	ppm	ASTM D5185m	3000	1621	1134	
Phosphorus	ppm	ASTM D5185m	1150	968	1041	
Zinc	ppm	ASTM D5185m	1350	1323	1237	
Sulfur	ppm	ASTM D5185m	4250	2936	2821	
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.0	17.2	
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.6	8.6	
Visc @ 100°C	cSt	ASTM D445	14.4	12.8	12.5	

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.



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 SALEM NATIONALEASE CORPORATION Sample No. : WC0936290 Received 198 PARK PLAZA DRIVE : 23 May 2024 Lab Number : 06190039 Tested WINSTON SALEM, NC : 25 May 2024 Diagnosed Unique Number : 11046791 : 25 May 2024 - Wes Davis US 27105 Test Package : FLEET **Contact: Audrey Hopkins** Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. Audrey.Hopkins@salemcorp.com * - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (336)767-9642 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: x:

Contact/Location: Audrey Hopkins - SALWIN Page 2 of 2