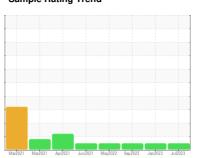


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



LL354255

Component **Diesel Engine**

DIESEL ENGINE OIL SAE 10W30 (--- GAL)

DIAGNOSIS

Recommendation

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

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

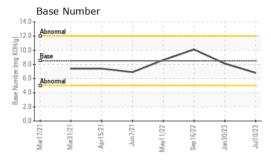
Fluid Condition

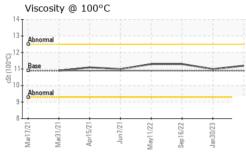
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Mm2/021 Mm2/021 Apr2/021 Jun2/022 Mm2/022 Smp2/022 Jan2/023 Jul2/023							
SAMPLE INFORM	//ATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		IL05904095	IL05770208	IL05655997	
Sample Date		Client Info		10 Jul 2023	30 Jan 2023	16 Sep 2022	
Machine Age	mls	Client Info		175969	152211	132635	
Oil Age	mls	Client Info		0	0	0	
Oil Changed		Client Info		N/A	N/A	N/A	
Sample Status				NORMAL	NORMAL	NORMAL	
CONTAMINATION	N	method	limit/base	current	history1	history2	
Fuel		WC Method	>5	<1.0	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>100	64	31	47	
Chromium	ppm	ASTM D5185m	>20	1	<1	<1	
Nickel	ppm	ASTM D5185m	>4	0	0	1	
Titanium	ppm	ASTM D5185m		<1	0	<1	
Silver	ppm	ASTM D5185m	>3	0	0	<1	
Aluminum	ppm	ASTM D5185m	>20	11	11	24	
Lead	ppm	ASTM D5185m	>40	0	0	2	
Copper	ppm	ASTM D5185m	>330	2	<1	2	
Tin	ppm	ASTM D5185m	>15	<1	0	1	
Vanadium	ppm	ASTM D5185m		<1	0	2	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m	250	23	27	19	
Barium	ppm	ASTM D5185m	10	0	0	0	
Molybdenum	ppm	ASTM D5185m	100	52	45	44	
Manganese	ppm	ASTM D5185m		1	<1	2	
Magnesium	ppm	ASTM D5185m	450	572	512	520	
Calcium	ppm	ASTM D5185m	3000	1905	1709	1661	
Phosphorus	ppm	ASTM D5185m	1150	818	784	777	
Zinc	ppm	ASTM D5185m	1350	988	943	900	
Sulfur	ppm	ASTM D5185m	4250	2829	2320	2503	
CONTAMINANTS	;	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>25	11	9	11	
Sodium	ppm	ASTM D5185m		4	1	3	
Potassium	ppm	ASTM D5185m	>20	3	7	9	
INFRA-RED		method	limit/base	current	history1	history2	
		*AOTA D7044	>3	0.9	0.6	1.6	
Soot %	%	*ASTM D7844	/0	0.9	0.0	1.0	
Soot % Nitration	% Abs/cm	*ASTM D7844	>20	13.7	11.3	13.3	
Nitration	Abs/cm Abs/.1mm	*ASTM D7624	>20	13.7	11.3	13.3	
Nitration Sulfation	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415 method	>20 >30	13.7 24.5 current	11.3 22.8	13.3 26.2	
Nitration Sulfation FLUID DEGRADA	Abs/cm Abs/.1mm	*ASTM D7624 *ASTM D7415	>20 >30 limit/base	13.7 24.5	11.3 22.8 history1	13.3 26.2 history2	



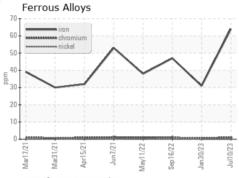
OIL ANALYSIS REPORT

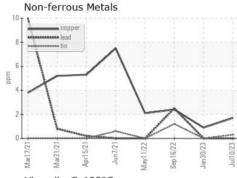


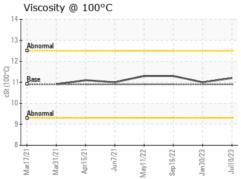


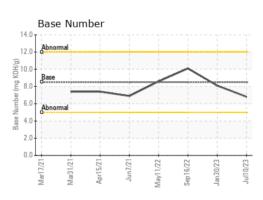
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES		method				history2
Visc @ 100°C	cSt	ASTM D445	10.9	11.2	11.0	11.3













Laboratory Sample No. Test Package : FLEET

Lab Number Unique Number : 10565451

: IL05904095 : 05904095

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 21 Jul 2023 Diagnosed : 26 Jul 2023 Diagnostician : Angela Borella

IDEALEASE-NORCROSS 4571 NORTH BUFORD HWY

NORCROSS, GA US 30071-2808

Contact: RICK MARKS

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

F: (770)300-0614