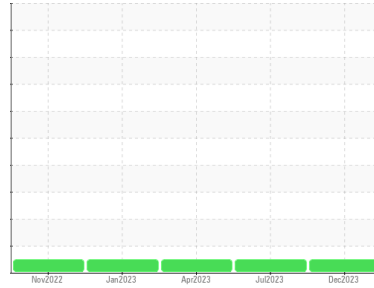


OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



Machine Id
222054 []

Component
Diesel Engine

Fluid
DIESEL ENGINE OIL SAE 10W30 (--- QTS)

DIAGNOSIS

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

All component wear rates are normal.

Contamination

Elevated aluminum (Al) 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.

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.

SAMPLE INFORMATION		method	limit/base	current	history1	history2
Sample Number	Client Info			PCA0101195	PCA0073120	PCA0073136
Sample Date	Client Info			16 Dec 2023	18 Jul 2023	13 Apr 2023
Machine Age	mls	Client Info		186164	137134	98073
Oil Age	mls	Client Info		0	30000	30000
Oil Changed	Client Info			Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

CONTAMINATION		method	limit/base	current	history1	history2
Fuel	WC Method	>5		<1.0	<1.0	<1.0
Water	WC Method	>0.2		NEG	NEG	NEG
Glycol	WC Method			NEG	NEG	NEG

WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>100	9	21	19
Chromium	ppm	ASTM D5185m	>20	1	3	4
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	6	15	17
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	4	30	98
Tin	ppm	ASTM D5185m	>15	0	0	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0

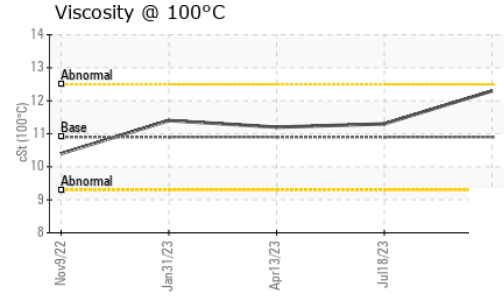
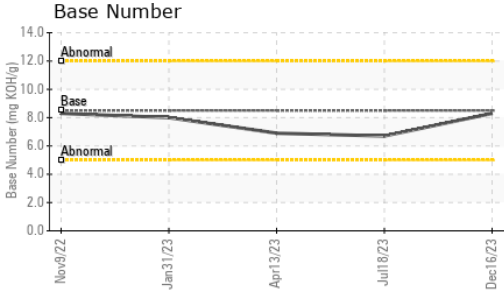
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185m	250	26	0	2
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	58	64	63
Manganese	ppm	ASTM D5185m		0	<1	1
Magnesium	ppm	ASTM D5185m	450	853	1043	1003
Calcium	ppm	ASTM D5185m	3000	966	1188	1126
Phosphorus	ppm	ASTM D5185m	1150	952	1021	1024
Zinc	ppm	ASTM D5185m	1350	1177	1291	1309
Sulfur	ppm	ASTM D5185m	4250	2713	2804	2990

CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185m	>25	4	3	3
Sodium	ppm	ASTM D5185m		1	3	2
Potassium	ppm	ASTM D5185m	>20	8	31	31

INFRA-RED		method	limit/base	current	history1	history2
Soot %	%	*ASTM D7844	>3	0.3	0.5	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.0	8.5	7.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.8	20.6	17.9

FLUID DEGRADATION		method	limit/base	current	history1	history2
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.5	17.3	15.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.3	6.7	6.9

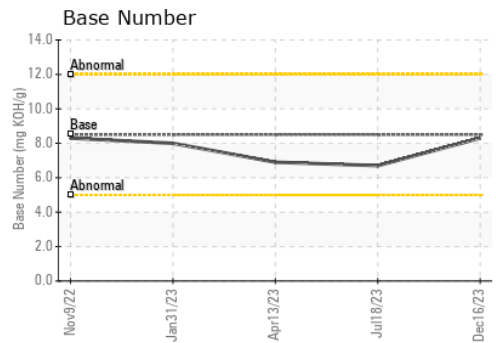
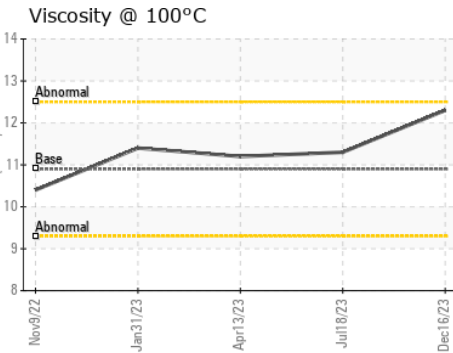
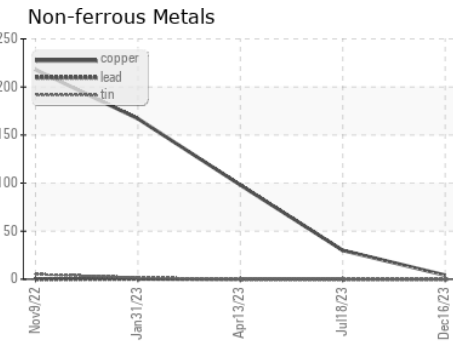
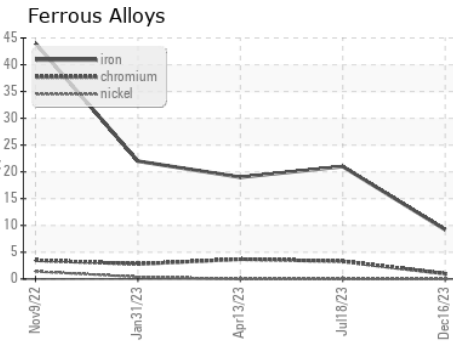
OIL ANALYSIS REPORT



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

FLUID PROPERTIES	method	limit/base	current	history1	history2	
Visc @ 100°C	cSt	ASTM D445	10.9	12.3	11.3	11.2

GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0101195 **Received** : 16 Jan 2024
Lab Number : **06060610** **Diagnosed** : 17 Jan 2024
Unique Number : 10831992 **Diagnostician** : Angela Borella
Test Package : FLEET

McLane Company - High Plains - 600HP
 1717 East Loop 289
 LUBBOCK, TX
 US 79403
 Contact: RITA GARCIA
 rita.garcia@mcclaneco.com
 T: (806)766-2902
 F:

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)