



WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
223103 []
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (--- 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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		PCA0101235	PCA0101190	PCA0101272
Sample Date		Client Info		06 Mar 2024	30 Dec 2023	11 Oct 2023
Machine Age	mls	Client Info		108118	0	43160
Oil Age	mls	Client Info		0	0	30000
Filter Age	mls	Client Info		0	0	30000
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	19	20	45
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	<1	0	<1
Titanium	ppm	ASTM D5185m		1	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm	ASTM D5185m	>20	7	10	15
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	37	67	234
Tin	ppm	ASTM D5185m	>15	1	1	4
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

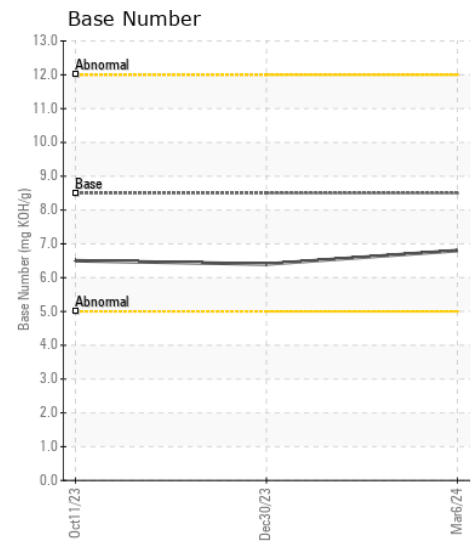
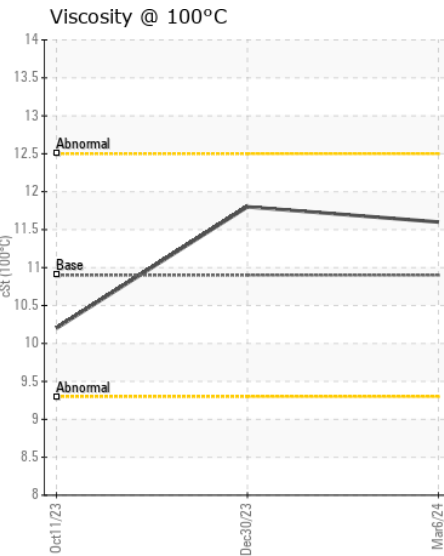
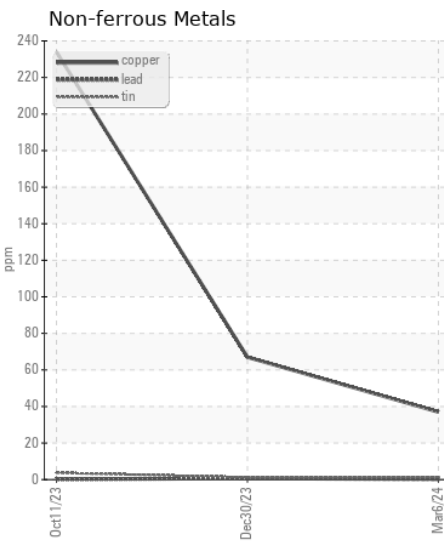
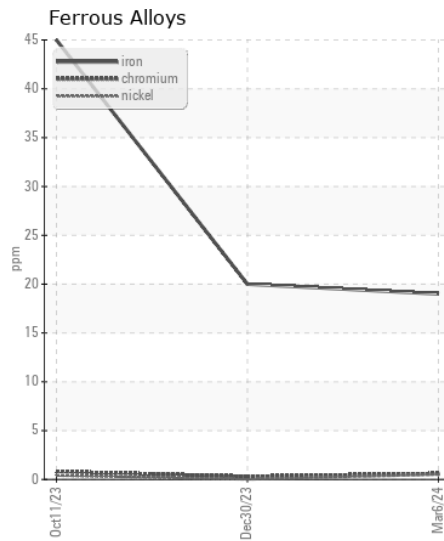
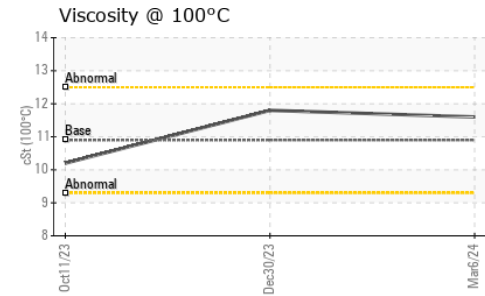
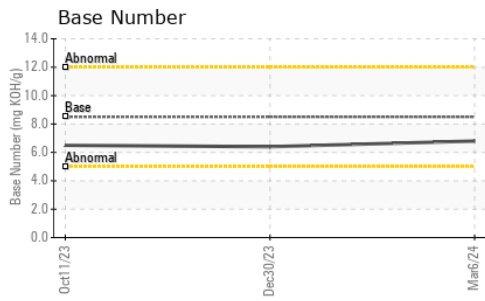
Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	6	10	▲ 46
Potassium	ppm	ASTM D5185m	>20	12	23	36
Fuel		WC Method	>5	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.4	0.4	0.5
Nitration	Abs/cm	*ASTM D7624	>20	8.5	8.5	10.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.4	20.6	23.3
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		2	2	0
Boron	ppm	ASTM D5185m	250	6	12	93
Barium	ppm	ASTM D5185m	10	0	0	5
Molybdenum	ppm	ASTM D5185m	100	65	65	117
Manganese	ppm	ASTM D5185m		<1	<1	3
Magnesium	ppm	ASTM D5185m	450	954	859	711
Calcium	ppm	ASTM D5185m	3000	1144	1064	1383
Phosphorus	ppm	ASTM D5185m	1150	965	880	661
Zinc	ppm	ASTM D5185m	1350	1234	1139	863
Sulfur	ppm	ASTM D5185m	4250	2762	2233	2198
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.8	17.0	23.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	6.8	6.4	6.5
Visc @ 100°C	cSt	ASTM D445	10.9	11.6	11.8	10.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : PCA0101235
Lab Number : 06121355
Unique Number : 10930188
Test Package : FLEET

Received : 18 Mar 2024
Tested : 19 Mar 2024
Diagnosed : 19 Mar 2024 - Wes Davis

McLane Company - High Plains - 600HP
 1717 East Loop 289
 LUBBOCK, TX
 US 79403
 Contact: RITA GARCIA
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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)