HUTCHENS RENTZ-EDEN

OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
907
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 5W30 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

WEAR

Cylinder, crank, or cam shaft wear is indicated.

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. Elemental level of silicon (Si) above normal indicating ingress of seal material.

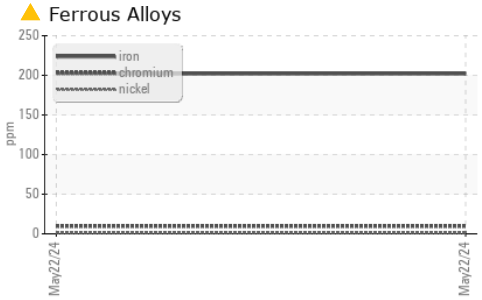
FLUID CONDITION

The BN level is low.

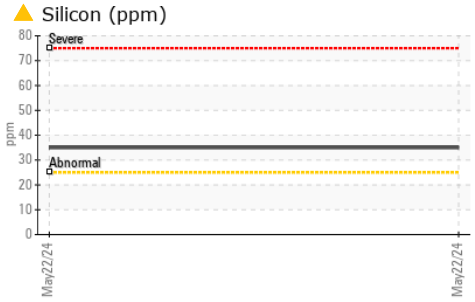
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		HRE0000227	---	---
Sample Date		Client Info		22 May 2024	---	---
Machine Age	mls	Client Info		119121	---	---
Oil Age	mls	Client Info		100000	---	---
Filter Age	mls	Client Info		50000	---	---
Oil Changed		Client Info		Changed	---	---
Filter Changed		Client Info		Changed	---	---
Sample Status				ABNORMAL	---	---
Iron	ppm	ASTM D5185m	>100	▲ 202	---	---
Chromium	ppm	ASTM D5185m	>20	10	---	---
Nickel	ppm	ASTM D5185m	>4	1	---	---
Titanium	ppm	ASTM D5185m		<1	---	---
Silver	ppm	ASTM D5185m	>3	1	---	---
Aluminum	ppm	ASTM D5185m	>20	62	---	---
Lead	ppm	ASTM D5185m	>40	16	---	---
Copper	ppm	ASTM D5185m	>330	22	---	---
Tin	ppm	ASTM D5185m	>15	6	---	---
Vanadium	ppm	ASTM D5185m		0	---	---
White Metal	scalar	*Visual	NONE	NONE	---	---
Yellow Metal	scalar	*Visual	NONE	NONE	---	---
Silicon	ppm	ASTM D5185m	>25	▲ 35	---	---
Potassium	ppm	ASTM D5185m	>20	183	---	---
Fuel		WC Method	>5	<1.0	---	---
Water		WC Method	>0.2	NEG	---	---
Glycol		WC Method		NEG	---	---
Soot %	%	*ASTM D7844	>3	1	---	---
Nitration	Abs/cm	*ASTM D7624	>20	21.4	---	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	38.9	---	---
Silt	scalar	*Visual	NONE	NONE	---	---
Debris	scalar	*Visual	NONE	NONE	---	---
Sand/Dirt	scalar	*Visual	NONE	NONE	---	---
Appearance	scalar	*Visual	NORML	NORML	---	---
Odor	scalar	*Visual	NORML	NORML	---	---
Emulsified Water	scalar	*Visual	>0.2	NEG	---	---
Sodium	ppm	ASTM D5185m		7	---	---
Boron	ppm	ASTM D5185m	250	19	---	---
Barium	ppm	ASTM D5185m	10	<1	---	---
Molybdenum	ppm	ASTM D5185m	100	73	---	---
Manganese	ppm	ASTM D5185m		7	---	---
Magnesium	ppm	ASTM D5185m	450	651	---	---
Calcium	ppm	ASTM D5185m	3000	2004	---	---
Phosphorus	ppm	ASTM D5185m	1150	1168	---	---
Zinc	ppm	ASTM D5185m	1350	1513	---	---
Sulfur	ppm	ASTM D5185m	4250	3408	---	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	54.5	---	---
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	▲ 0.8	---	---
Visc @ 100°C	cSt	ASTM D445	10.9	14.7	---	---

Base Number

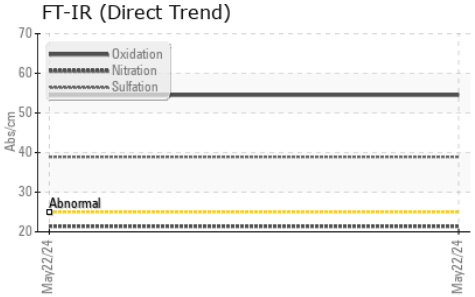
Ferrous Alloys



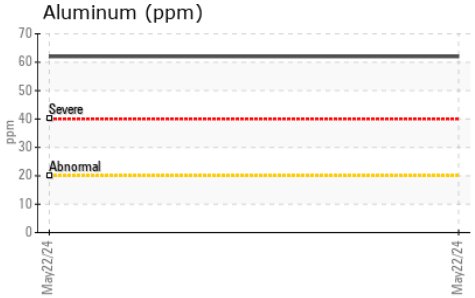
Silicon (ppm)



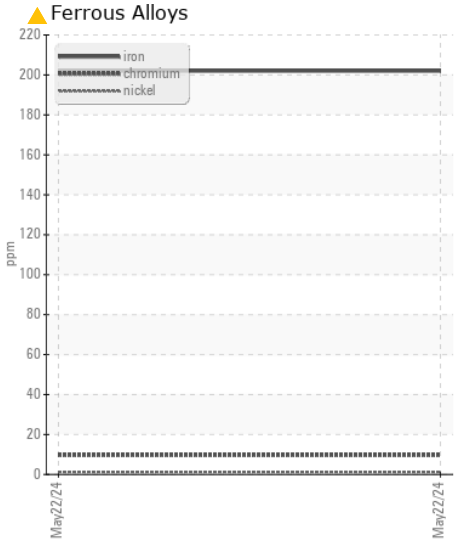
FT-IR (Direct Trend)



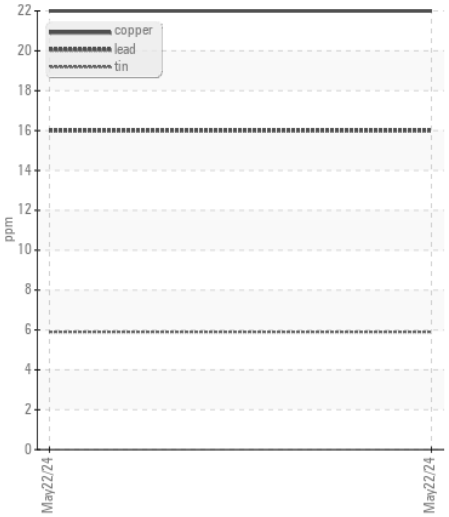
Aluminum (ppm)



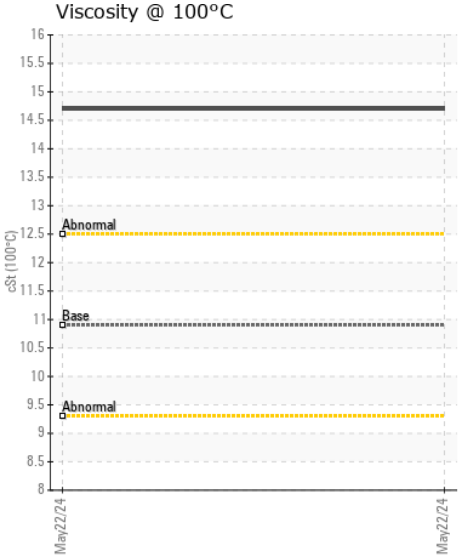
Ferrous Alloys



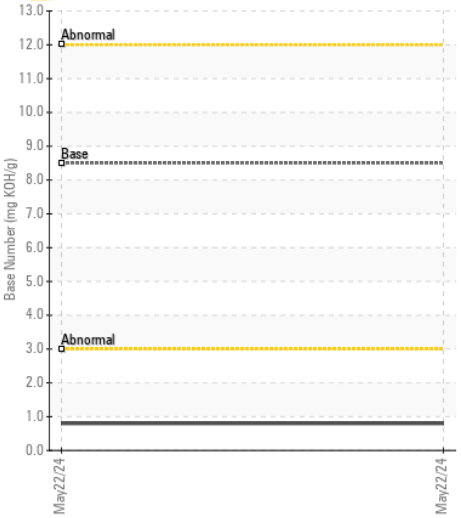
Non-ferrous Metals



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory	: WearCheck USA - 501 Madison Ave., Cary, NC 27513		
Sample No.	: HRE0000227	**Received**	: 28 May 2024
Lab Number	: 06193240	**Tested**	: 30 May 2024
Unique Number	: 11049992	**Diagnosed**	: 30 May 2024 - Sean Felton
Test Package	: FLEET		

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)

MABE TRUCKING
PO BOX 1081
EDEN, NC
US 27289
Contact: MAINTENANCE
maintenancemanager@mabetrucking.com
T:
F: (336)635-1791