CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ABNORMAL

Machine Id
MACK CV713 T-86 (S/N 1M2AG11C96M044316)
Component
Diesel Engine
Fluid
PHILLIPS 66 15W40 (12 GAL)

RECOMMENDATION

We advise that you check for faulty combustion, plugged air filters, or aftercoolers. Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. NOTE: High solids (carbon/soot) in the sample have limited the accuracy of Infra-Red data including Total Base Number (TBN) value.

WEAR

All component wear rates are normal.

CONTAMINATION

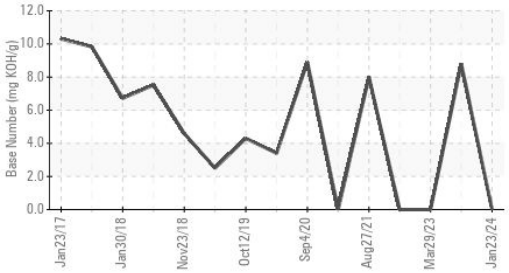
There is an abnormal amount of solids and carbon present in the oil.

FLUID CONDITION

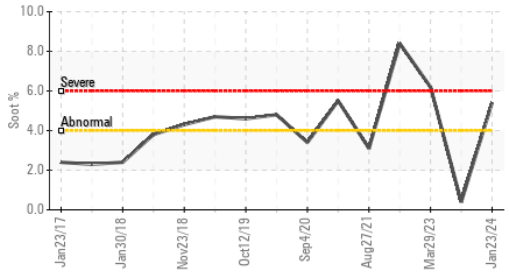
The BN level is low.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0849495	WC0794459	WC0782698
Sample Date		Client Info		23 Jan 2024	08 Apr 2023	29 Mar 2023
Machine Age	mls	Client Info		656498	405	640955
Oil Age	mls	Client Info		15534	405	640955
Filter Age	mls	Client Info		15534	405	15465
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				ABNORMAL	NORMAL	SEVERE
Iron	ppm	ASTM D5185m	>120	24	3	30
Chromium	ppm	ASTM D5185m	>20	<1	<1	1
Nickel	ppm	ASTM D5185m	>5	<1	<1	0
Titanium	ppm	ASTM D5185m	>2	77	74	74
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	0	2
Lead	ppm	ASTM D5185m	>40	2	<1	2
Copper	ppm	ASTM D5185m	>330	21	1	9
Tin	ppm	ASTM D5185m	>15	2	<1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	6	5	4
Potassium	ppm	ASTM D5185m	>20	4	3	2
Fuel	%	ASTM D3524	>3.0	<1.0	<1.0	▲ 2.6
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>4	▲ 5.4	0.4	⬢ 6.2
Nitration	Abs/cm	*ASTM D7624	>20	12.4	6.0	14.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	29.4	19.5	33.6
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
Sodium	ppm	ASTM D5185m		3	3	2
Boron	ppm	ASTM D5185m		63	147	71
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		2	2	12
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		377	335	435
Calcium	ppm	ASTM D5185m		1631	1536	1849
Phosphorus	ppm	ASTM D5185m		966	903	996
Zinc	ppm	ASTM D5185m		1153	1034	1241
Sulfur	ppm	ASTM D5185m		3521	3310	4730
Oxidation	Abs/.1mm	*ASTM D7414	>25	16.2	13.4	19.5
Base Number (BN)	mg KOH/g	ASTM D2896		▲ 0.0	8.8	▲ 0.0
Visc @ 100°C	cSt	ASTM D445		15.7	14.8	16.2

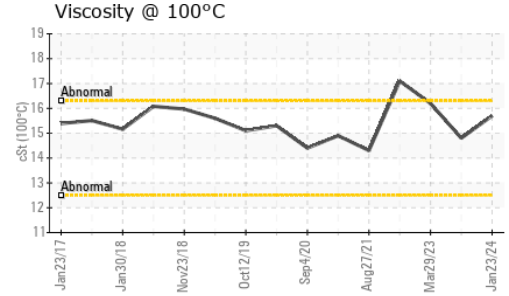
Base Number



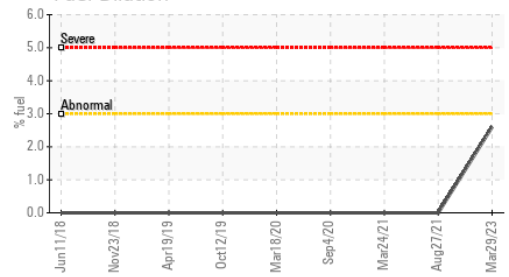
Soot %



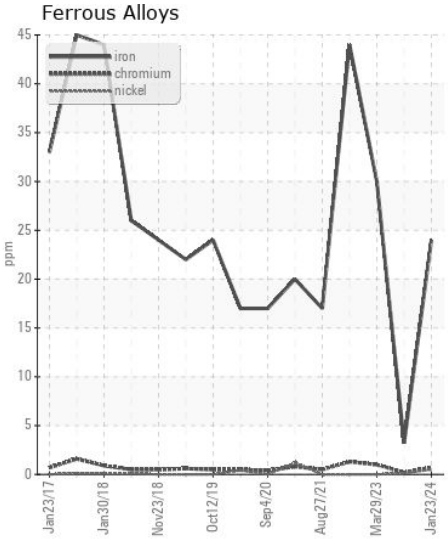
Viscosity @ 100°C



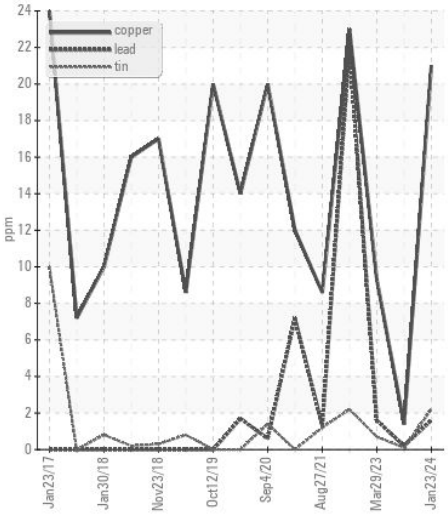
Fuel Dilution



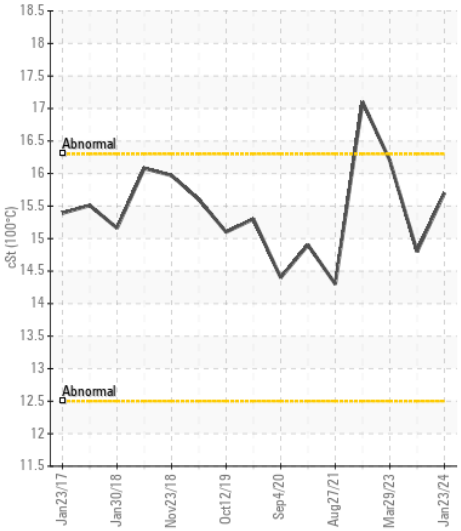
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



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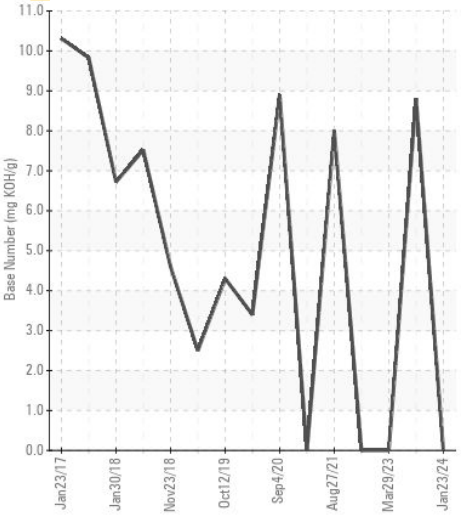

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0849495 **Recieved** : 31 Jan 2024
Lab Number : 06075509 **Diagnosed** : 01 Feb 2024
Unique Number : 10857600 **Diagnostician** : Jonathan Hester
Test Package : CONST (Additional Tests: FuelDilution, TBN)

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)

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