MOB I

Dura-Check Fluid Analysis

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Machine Id
M32006
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 40 (--- QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

WEAR

Metal levels are typical for a new component breaking in.

CONTAMINATION

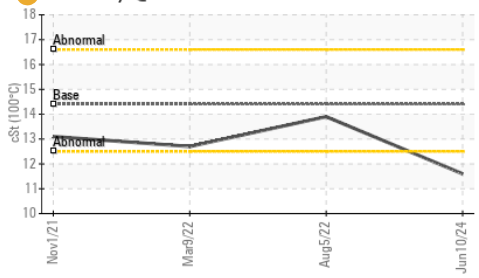
Fuel content negligible. No other contaminants were detected in the oil.

FLUID CONDITION

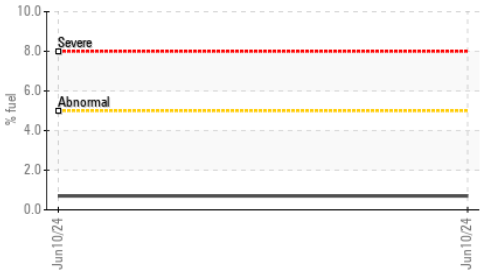
The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0034082	DC0021256	DC0019261
Sample Date		Client Info		10 Jun 2024	05 Aug 2022	09 Mar 2022
Machine Age	mls	Client Info		57237	43049	24457
Oil Age	mls	Client Info		3639	0	1552
Filter Age	mls	Client Info		3639	0	1552
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ATTENTION	SEVERE	ABNORMAL
Iron	ppm	ASTM D5185m	>100	2	▲ 678	▲ 303
Chromium	ppm	ASTM D5185m	>20	<1	6	3
Nickel	ppm	ASTM D5185m	>4	<1	2	<1
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	40	17
Lead	ppm	ASTM D5185m	>40	<1	<1	<1
Copper	ppm	ASTM D5185m	>330	1	7	13
Tin	ppm	ASTM D5185m	>15	<1	1	2
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	7	14	15
Potassium	ppm	ASTM D5185m	>20	9	52	34
Fuel	%	ASTM D3524	>5	0.7	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0	▲ 3.4	1.4
Nitration	Abs/cm	*ASTM D7624	>20	5.1	20.5	14.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	44.2	33.5
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	>216	5	4	3
Boron	ppm	ASTM D5185m	250	218	41	55
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	2	4	9
Manganese	ppm	ASTM D5185m		<1	7	4
Magnesium	ppm	ASTM D5185m	450	23	100	145
Calcium	ppm	ASTM D5185m	3000	2017	2196	2311
Phosphorus	ppm	ASTM D5185m	1150	907	930	1063
Zinc	ppm	ASTM D5185m	1350	1092	1208	1365
Sulfur	ppm	ASTM D5185m	4250	3370	2961	2792
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.7	43.7	33.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.7	4.4	5.7
Visc @ 100°C	cSt	ASTM D445	14.4	● 11.6	13.9	12.7

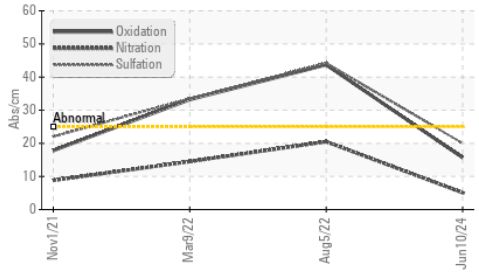
Viscosity @ 100°C



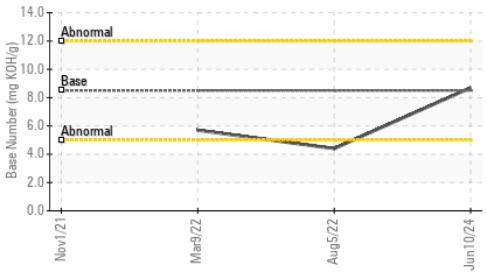
Fuel Dilution



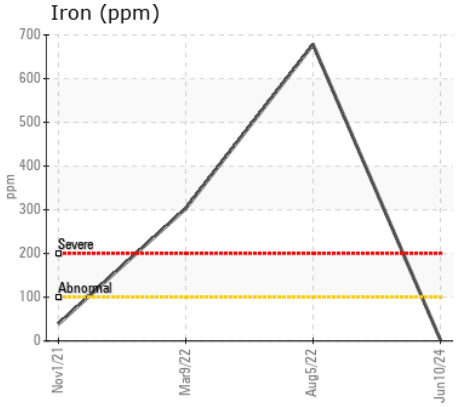
FT-IR (Direct Trend)



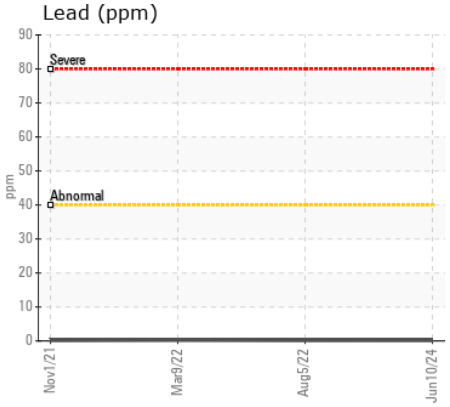
Base Number



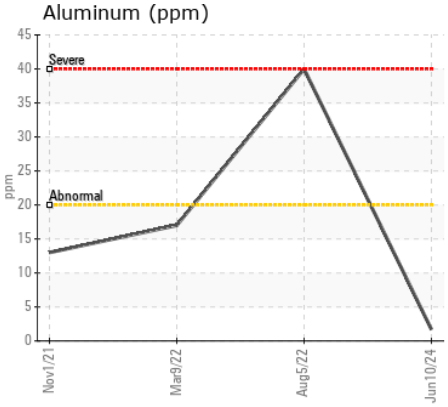
Iron (ppm)



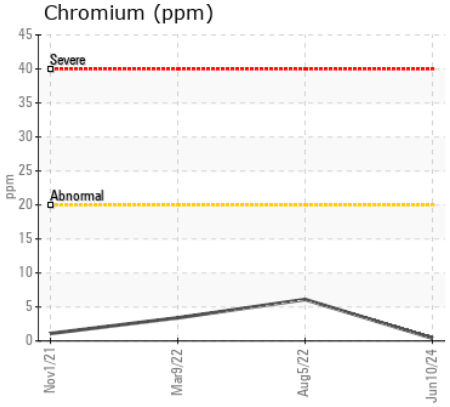
Lead (ppm)



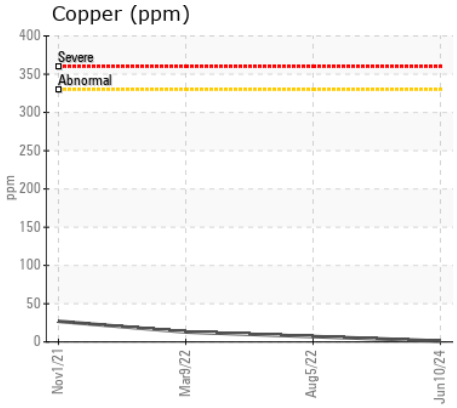
Aluminum (ppm)



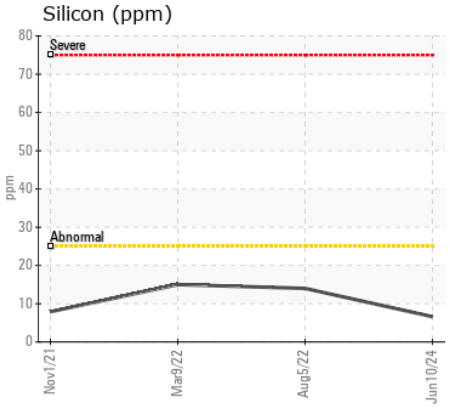
Chromium (ppm)



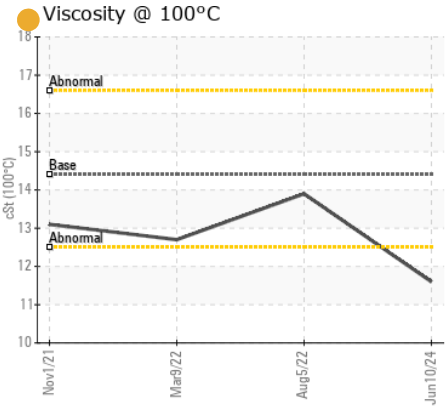
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



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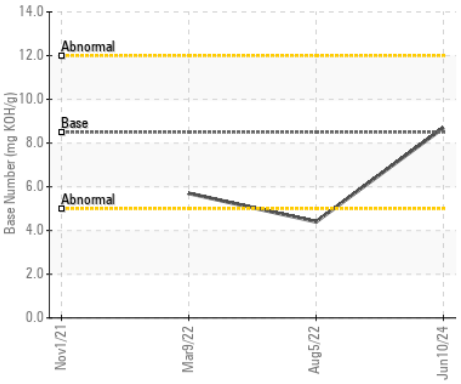

Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0034082 **Received** : 10 Jul 2024
Lab Number : 06232109 **Tested** : 12 Jul 2024
Unique Number : 11115602 **Diagnosed** : 12 Jul 2024 - Sean Felton
Test Package : MOB 1 (Additional Tests: FuelDilution, PercentFuel, 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)

M&M FLEET
5046 BUCHANAN ST.
HYATTSVILLE, MD
US 20781
Contact: June McClosky
office@mmfleet.net
T: (301)779-4545
F: x: