MOB II

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	SEVERE
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Current
Machine Id
IC 33-15
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (30 QTS)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We advise that you inspect for the source(s) of wear. We recommend an early resample to monitor this condition.

WEAR

Piston and cylinder wear is indicated.

CONTAMINATION

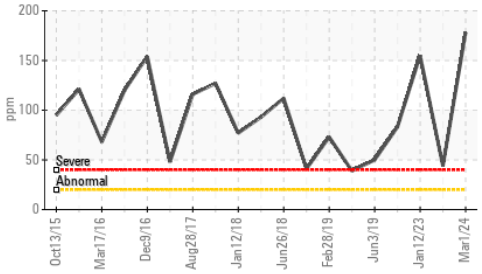
There is no indication of any contamination in the oil.

FLUID CONDITION

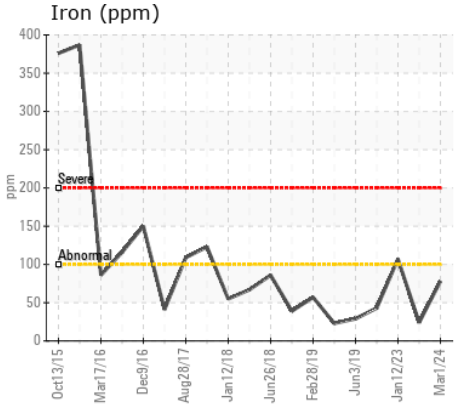
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0849405**	WC0693091	WC0693078
Sample Date		Client Info		**01 Mar 2024**	24 Feb 2023	12 Jan 2023
Machine Age	mls	Client Info		**100775**	90900	89280
Oil Age	mls	Client Info		**9915**	1620	11597
Filter Age	mls	Client Info		**9915**	1620	11597
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Filter Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**SEVERE**	ABNORMAL	SEVERE
Iron	ppm	ASTM D5185m	>100	**78**	24	▲ 107
Chromium	ppm	ASTM D5185m	>20	**5**	2	5
Nickel	ppm	ASTM D5185m	>4	**<1**	<1	0
Titanium	ppm	ASTM D5185m		**0**	0	<1
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	▲ **178**	▲ 44	▲ 155
Lead	ppm	ASTM D5185m	>40	**4**	<1	3
Copper	ppm	ASTM D5185m	>330	**9**	2	9
Tin	ppm	ASTM D5185m	>15	**<1**	0	<1
Vanadium	ppm	ASTM D5185m		**0**	0	0
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**11**	6	12
Potassium	ppm	ASTM D5185m	>20	**8**	2	9
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	**2.7**	0.7	2.9
Nitration	Abs/cm	*ASTM D7624	>20	**14.9**	8.0	14.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	**29.2**	17.9	29.3
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
Sodium	ppm	ASTM D5185m		**2**	2	<1
Boron	ppm	ASTM D5185m	250	**3**	5	10
Barium	ppm	ASTM D5185m	10	**0**	0	0
Molybdenum	ppm	ASTM D5185m	100	**8**	7	7
Manganese	ppm	ASTM D5185m		**<1**	2	1
Magnesium	ppm	ASTM D5185m	450	**35**	37	46
Calcium	ppm	ASTM D5185m	3000	**2450**	2276	2176
Phosphorus	ppm	ASTM D5185m	1150	**1017**	826	853
Zinc	ppm	ASTM D5185m	1350	**1113**	1033	981
Sulfur	ppm	ASTM D5185m	4250	**3723**	3886	3423
Oxidation	Abs/.1mm	*ASTM D7414	>25	**19.6**	10.5	19.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**4.33**	9.69	5.23
Visc @ 100°C	cSt	ASTM D445	10.9	**10.6**	14.8	11.0

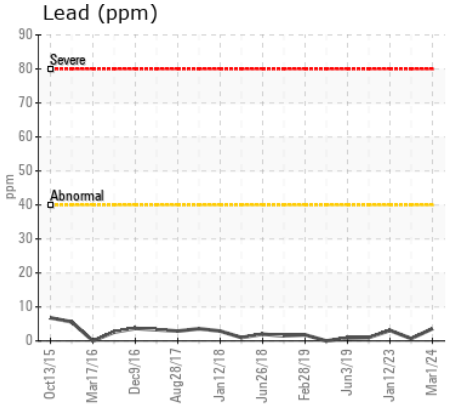
Aluminum (ppm)



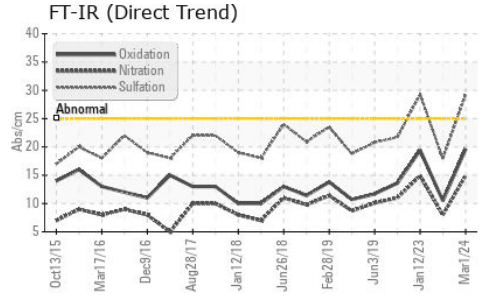
Iron (ppm)



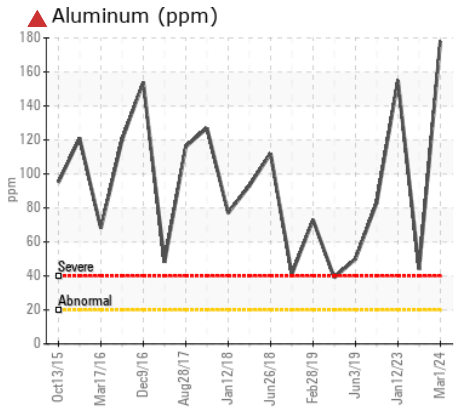
Lead (ppm)



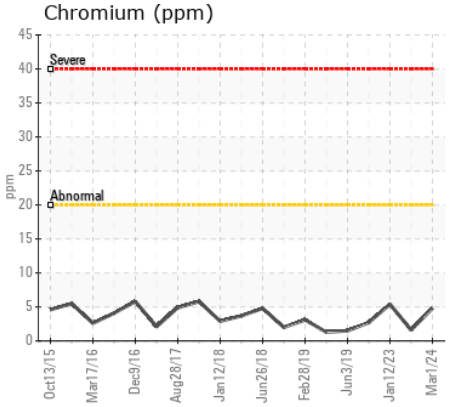
FT-IR (Direct Trend)



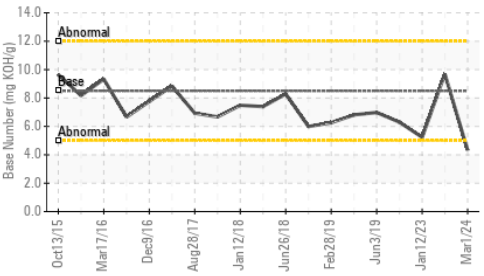
Aluminum (ppm)



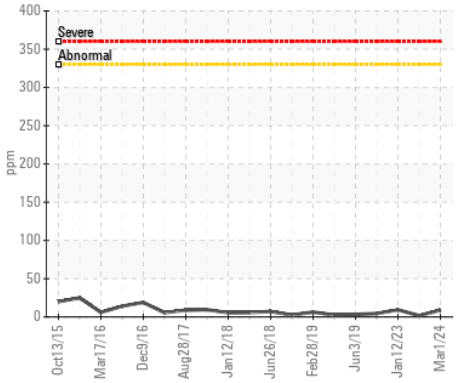
Chromium (ppm)



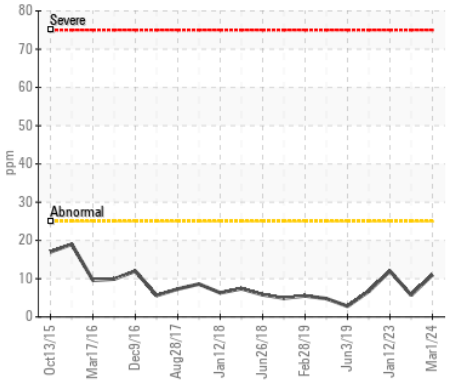
Base Number



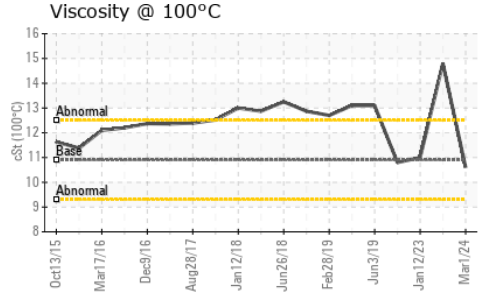
Copper (ppm)



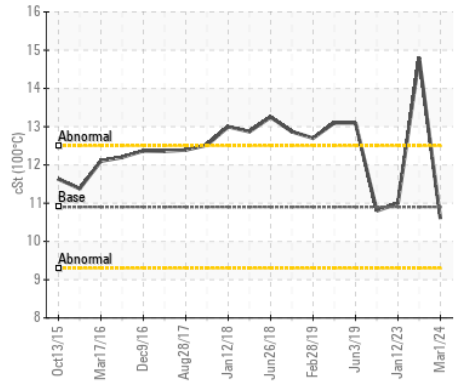
Silicon (ppm)



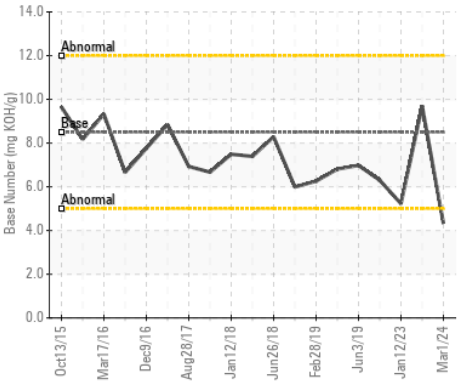
Viscosity @ 100°C



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0849405
Lab Number : 06151297
Unique Number : 10981375
Test Package : MOB 2

Received : 16 Apr 2024
Tested : 18 Apr 2024
Diagnosed : 19 Apr 2024 - Don Baldridge

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)

INDIANOLA COMMUNITY SCHOOL DISTRICT
1206 EAST ASHLAND, ATTN: JASON LOGAN
INDIANOLA, IA
US 50125
Contact: JASON LOGAN
loganj@indianola.k12.ia.us
T: (515)961-9592
F: (515)961-9504