CONST

WEAR CHECK

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
5502 5502
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 15W40 (10 GAL)

RECOMMENDATION

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

WEAR

All component wear rates are normal.

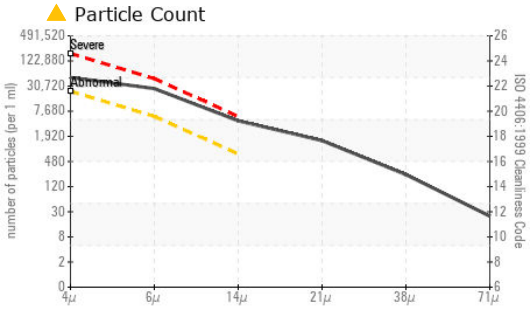
CONTAMINATION

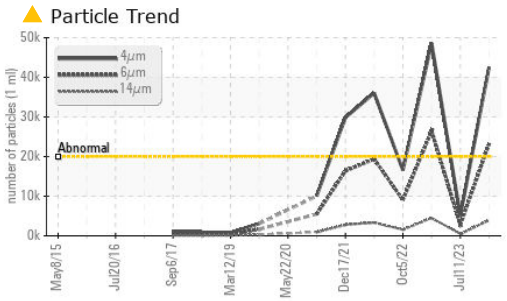
There is a high amount of particulates present in the oil. There is an abnormal amount of solids and carbon present in the oil.

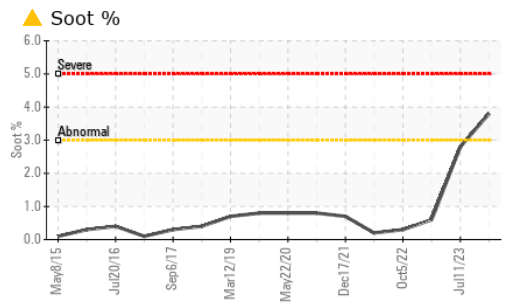
FLUID CONDITION

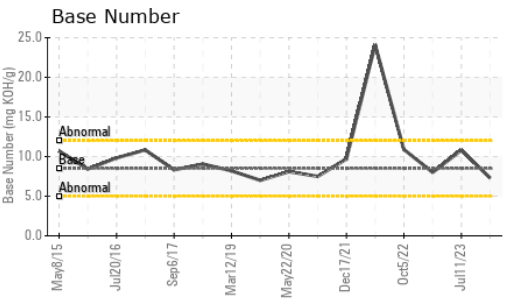
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

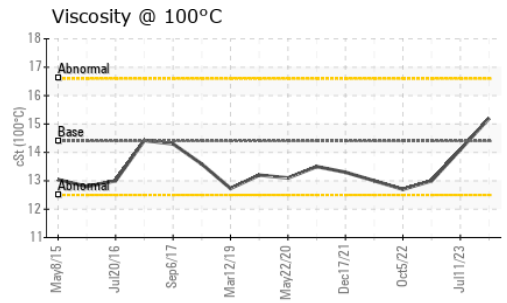
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		**WC0861945**	WC0808770	WC0765086
Sample Date		Client Info		**09 Jan 2024**	11 Jul 2023	09 May 2023
Machine Age	hrs	Client Info		**10497**	10163	9934
Oil Age	hrs	Client Info		**563**	10163	635
Filter Age	hrs	Client Info		**563**	10163	635
Oil Changed		Client Info		**Changed**	Not Changd	Changed
Filter Changed		Client Info		**Changed**	Not Changd	Changed
Sample Status				**ABNORMAL**	NORMAL	ABNORMAL
Iron	ppm	ASTM D5185m	>100	**53**	34	61
Chromium	ppm	ASTM D5185m	>20	**2**	1	3
Nickel	ppm	ASTM D5185m	>4	**2**	2	2
Titanium	ppm	ASTM D5185m		**0**	0	0
Silver	ppm	ASTM D5185m	>3	**0**	0	0
Aluminum	ppm	ASTM D5185m	>20	**3**	1	5
Lead	ppm	ASTM D5185m	>40	**5**	2	8
Copper	ppm	ASTM D5185m	>330	**79**	20	75
Tin	ppm	ASTM D5185m	>15	**2**	<1	0
Vanadium	ppm	ASTM D5185m		**<1**	0	0
White Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	**NONE**	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	**12**	10	11
Potassium	ppm	ASTM D5185m	>20	**0**	3	2
Fuel	%	ASTM D3524	>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	▲ **3.8**	2.8	0.6
Nitration	Abs/cm	*ASTM D7624	>20	**14.9**	11.9	11.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	**30.7**	27.9	25.0
Particles >4µm		ASTM D7647	>20000	▲ **42559**	5133	▲ 48605
Particles >6µm		ASTM D7647	>5000	▲ **23184**	2796	▲ 26478
Particles >14µm		ASTM D7647	>640	▲ **3946**	476	▲ 4506
Particles >21µm		ASTM D7647	>160	▲ **1329**	160	▲ 1518
Particles >38µm		ASTM D7647	>40	▲ **205**	25	▲ 234
Particles >71µm		ASTM D7647	>10	▲ **21**	3	▲ 24
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ **23/22/19**	20/19/16	▲ 23/22/19
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	>158	**9**	8	22
Boron	ppm	ASTM D5185m	250	**21**	25	29
Barium	ppm	ASTM D5185m	10	**0**	0	0
Molybdenum	ppm	ASTM D5185m	100	**51**	54	54
Manganese	ppm	ASTM D5185m		**1**	<1	0
Magnesium	ppm	ASTM D5185m	450	**620**	539	580
Calcium	ppm	ASTM D5185m	3000	**1618**	1664	1759
Phosphorus	ppm	ASTM D5185m	1150	**805**	794	811
Zinc	ppm	ASTM D5185m	1350	**1046**	972	1014
Sulfur	ppm	ASTM D5185m	4250	**2429**	2584	2826
Oxidation	Abs/.1mm	*ASTM D7414	>25	**25.5**	22.2	25.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	**7.3**	10.8	8.0
Visc @ 100°C	cSt	ASTM D445	14.4	**15.2**	14.1	13.0

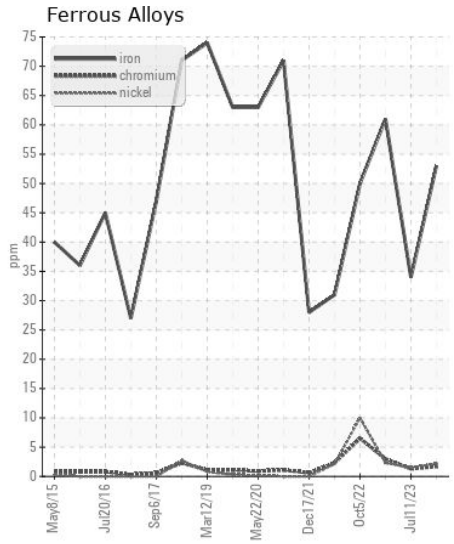


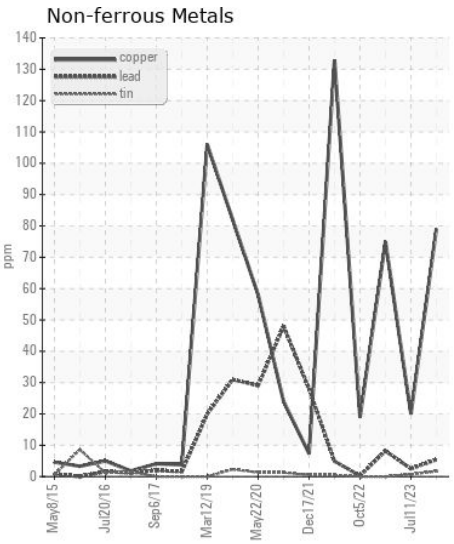


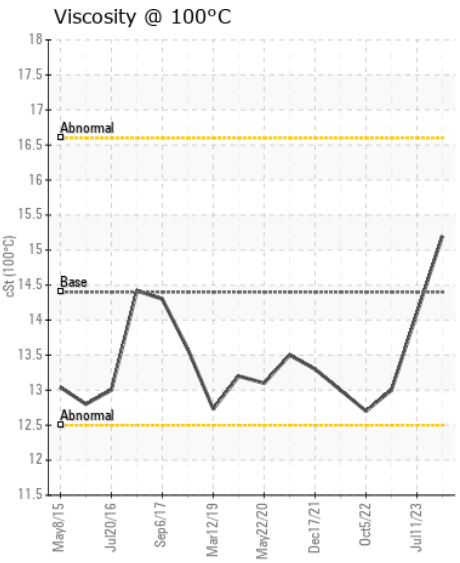


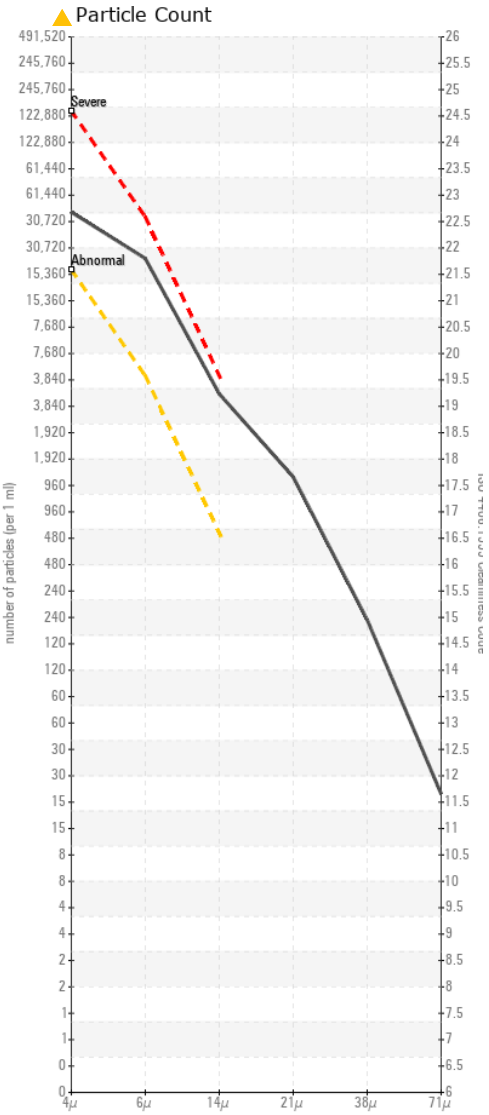


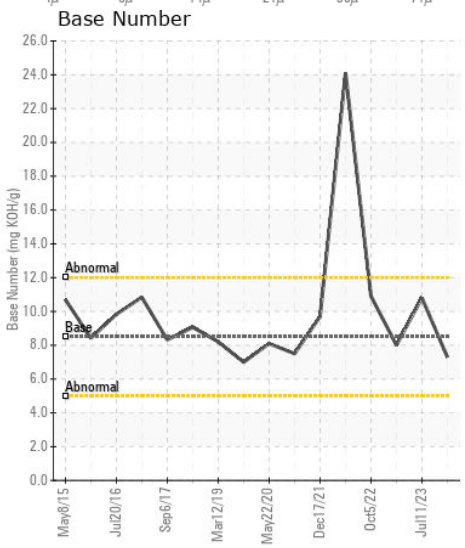












Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0861945 **Recieved** : 11 Jan 2024
Lab Number : 06057952 **Diagnosed** : 12 Jan 2024
Unique Number : 10829334 **Diagnostician** : Don Baldridge
Test Package : CONST (Additional Tests: FuelDilution, PrtCount, TBN)

Certificate L2367

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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