OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area
Mobile Fleet
Machine Id
6461 6461
Component
Diesel Engine
Fluid
DIESEL ENGINE OIL SAE 10W30 (8 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.

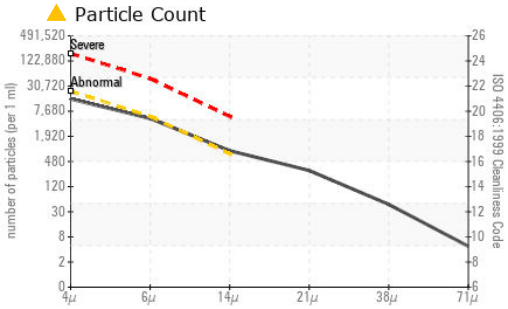
CONTAMINATION

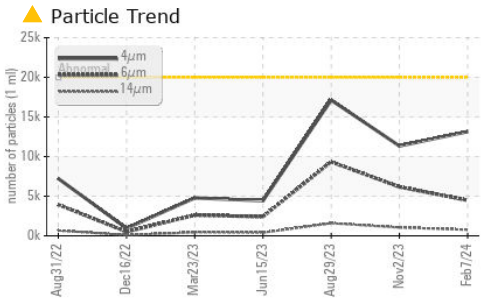
There is a moderate amount of particulates present in the oil.

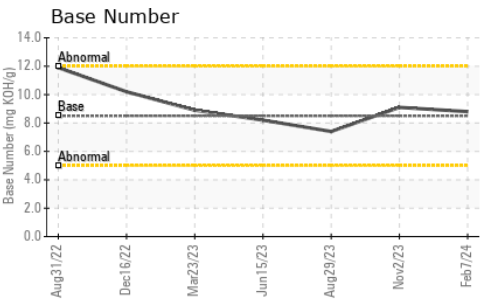
FLUID CONDITION

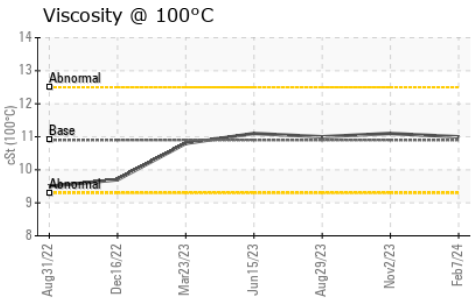
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

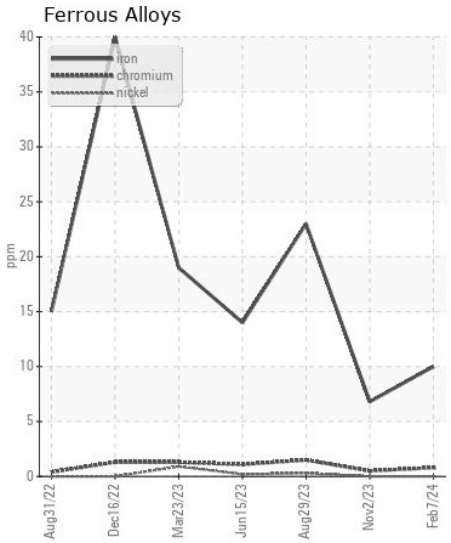
Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0902824	WC0867052	WC0852361
Sample Date		Client Info		07 Feb 2024	02 Nov 2023	29 Aug 2023
Machine Age	hrs	Client Info		2642	2433	2127
Oil Age	hrs	Client Info		219	306	837
Filter Age	hrs	Client Info		219	306	837
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ATTENTION	ATTENTION	ABNORMAL
Iron	ppm	ASTM D5185m	>100	10	7	23
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	<1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	6	5	8
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	138	128	305
Tin	ppm	ASTM D5185m	>15	<1	<1	<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	4	5	6
Potassium	ppm	ASTM D5185m	>20	11	8	17
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	0.3	0.2	0.4
Nitration	Abs/cm	*ASTM D7624	>20	7.3	6.6	8.7
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.4	21.8	19.2
Particles >4µm		ASTM D7647	>20000	13149	11336	17130
Particles >6µm		ASTM D7647	>5000	4479	▲ 6175	▲ 9331
Particles >14µm		ASTM D7647	>640	▲ 762	▲ 1051	▲ 1588
Particles >21µm		ASTM D7647	>160	▲ 257	▲ 354	▲ 535
Particles >38µm		ASTM D7647	>40	40	▲ 55	▲ 83
Particles >71µm		ASTM D7647	>10	4	6	8
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 21/19/17	▲ 21/20/17	▲ 21/20/18
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	1	2
Boron	ppm	ASTM D5185m	250	40	44	4
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	49	48	54
Manganese	ppm	ASTM D5185m		<1	<1	1
Magnesium	ppm	ASTM D5185m	450	538	515	735
Calcium	ppm	ASTM D5185m	3000	1580	1529	1434
Phosphorus	ppm	ASTM D5185m	1150	757	636	830
Zinc	ppm	ASTM D5185m	1350	903	882	1058
Sulfur	ppm	ASTM D5185m	4250	2167	2273	2689
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.5	19.1	16.7
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.8	9.1	7.4
Visc @ 100°C	cSt	ASTM D445	10.9	11.0	11.1	11.0

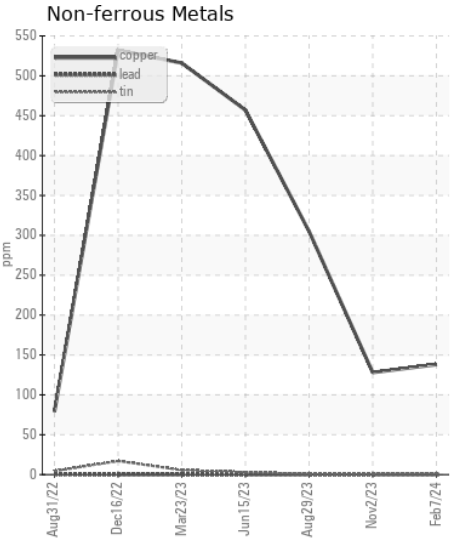


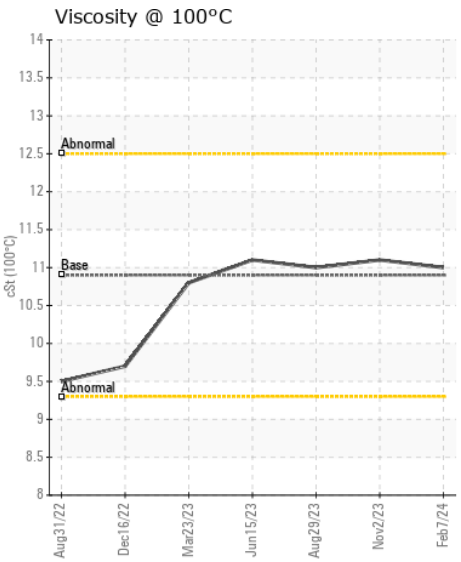


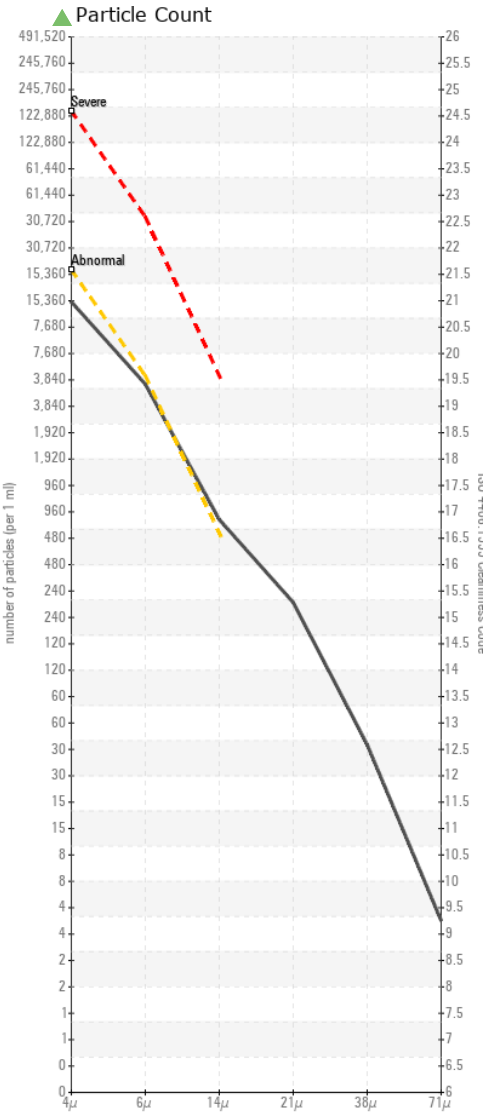


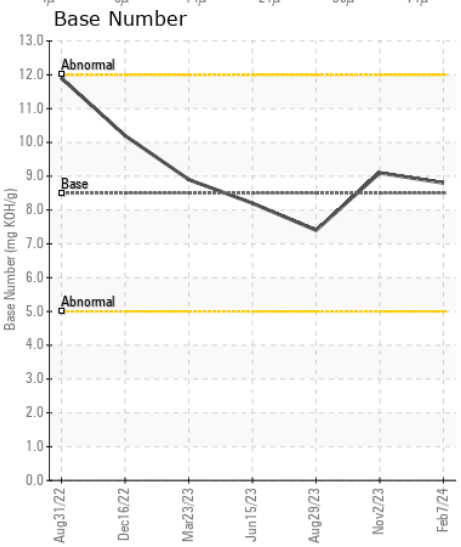












Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0902824 **Received** : 12 Feb 2024
Lab Number : 06085944 **Tested** : 15 Feb 2024
Unique Number : 10873389 **Diagnosed** : 15 Feb 2024 - Doug Bogart
Test Package : CONST (Additional Tests: PrtCount, 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)

CAROLINA SUNROCK
PO BOX 25
BUTNER, NC
US 27509
Contact: Leigh Dennis
rdennis@thesunrockgroup.com
T: (919)575-4505
F: (919)575-0162