



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.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0939243	WC0918768	WC0902824
Sample Date		Client Info		20 May 2024	08 Apr 2024	07 Feb 2024
Machine Age	hrs	Client Info		3163	2905	2642
Oil Age	hrs	Client Info		521	263	219
Filter Age	hrs	Client Info		521	263	219
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ATTENTION	NORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	21	11	10
Chromium	ppm	ASTM D5185m	>20	2	1	<1
Nickel	ppm	ASTM D5185m	>4	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m	>3	1	<1	<1
Aluminum	ppm	ASTM D5185m	>20	12	4	6
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	69	42	138
Tin	ppm	ASTM D5185m	>15	2	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

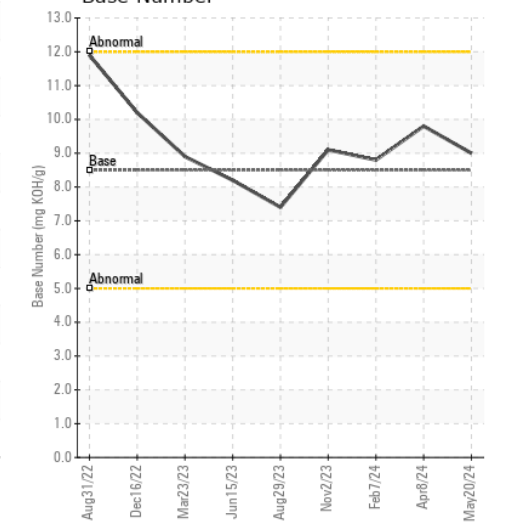
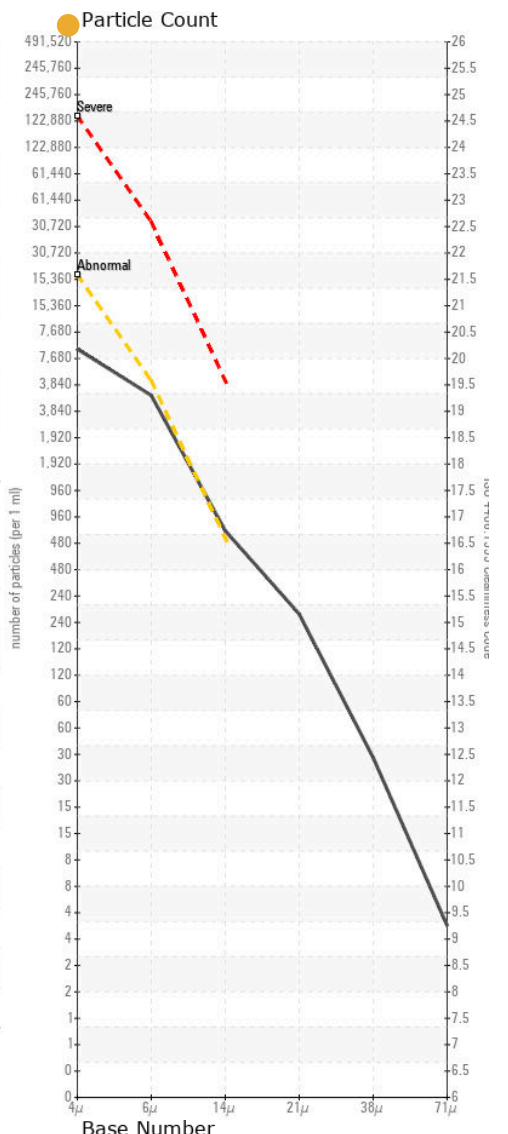
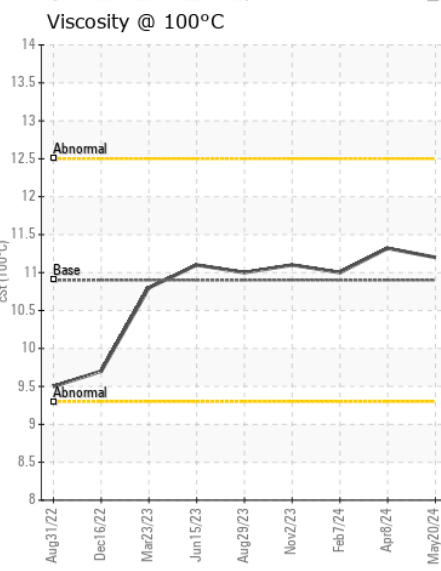
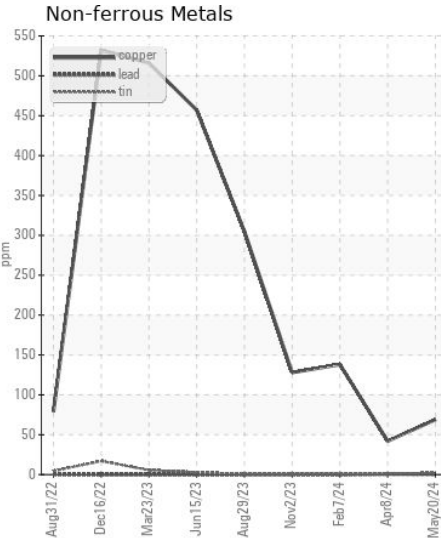
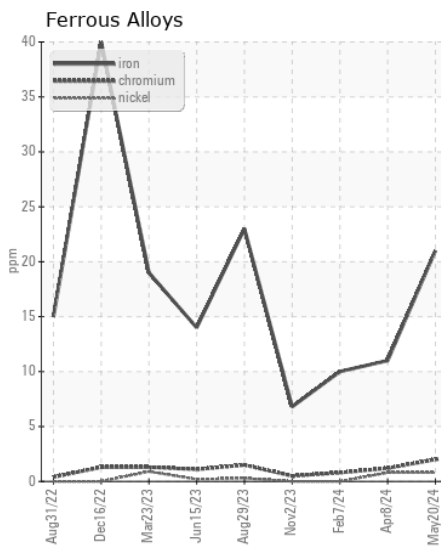
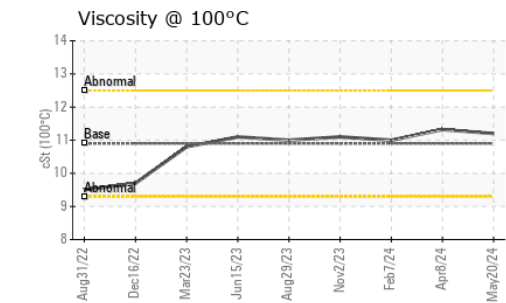
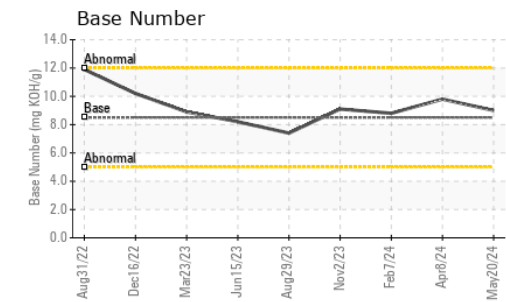
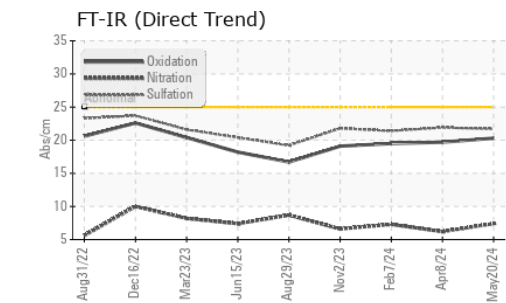
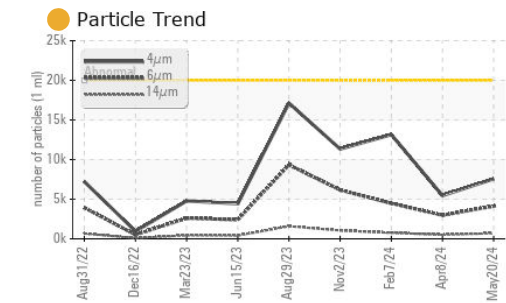
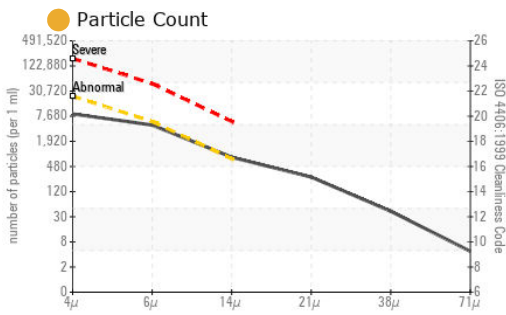
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>25	8	6	4
Potassium	ppm	ASTM D5185m	>20	21	9	11
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	0.2	0.2	0.3
Nitration	Abs/cm	*ASTM D7624	>20	7.4	6.2	7.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.7	21.9	21.4
Particles >4µm		ASTM D7647	>20000	7569	5455	13149
Particles >6µm		ASTM D7647	>5000	4123	2971	4479
Particles >14µm		ASTM D7647	>640	702	506	762
Particles >21µm		ASTM D7647	>160	236	170	257
Particles >38µm		ASTM D7647	>40	36	26	40
Particles >71µm		ASTM D7647	>10	4	3	4
Oil Cleanliness		ISO 4406 (c)	>21/19/16	20/19/17	20/19/16	21/19/17
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

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.

Sodium	ppm	ASTM D5185m		3	<1	2
Boron	ppm	ASTM D5185m	250	57	64	40
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	71	49	49
Manganese	ppm	ASTM D5185m		<1	1	<1
Magnesium	ppm	ASTM D5185m	450	765	536	538
Calcium	ppm	ASTM D5185m	3000	2494	1751	1580
Phosphorus	ppm	ASTM D5185m	1150	1116	790	757
Zinc	ppm	ASTM D5185m	1350	1363	975	903
Sulfur	ppm	ASTM D5185m	4250	3604	2767	2167
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.3	19.7	19.5
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.0	9.8	8.8
Visc @ 100°C	cSt	ASTM D445	10.9	11.2	11.32	11.0



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0939243 **Received** : 23 May 2024
Lab Number : 06189093 **Tested** : 28 May 2024
Unique Number : 11045845 **Diagnosed** : 28 May 2024 - Don Baldrige
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)

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