



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area

Mobile Fleet

Machine Id

3011 3011

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 15W40 (--- GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0861703	WC0808775	WC0392342
Sample Date		Client Info		21 Apr 2024	23 Jan 2024	18 Jul 2023
Machine Age	hrs	Client Info		6644	6052	5190
Oil Age	hrs	Client Info		0	1024	745
Filter Age	hrs	Client Info		0	1024	745
Oil Changed		Client Info		N/A	Changed	Changed
Filter Changed		Client Info		N/A	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	6	7	8
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		6	80	103
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	1	1	2
Lead	ppm	ASTM D5185m	>40	0	0	0
Copper	ppm	ASTM D5185m	>330	0	2	<1
Tin	ppm	ASTM D5185m	>15	<1	<1	0
Vanadium	ppm	ASTM D5185m		0	<1	<1
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

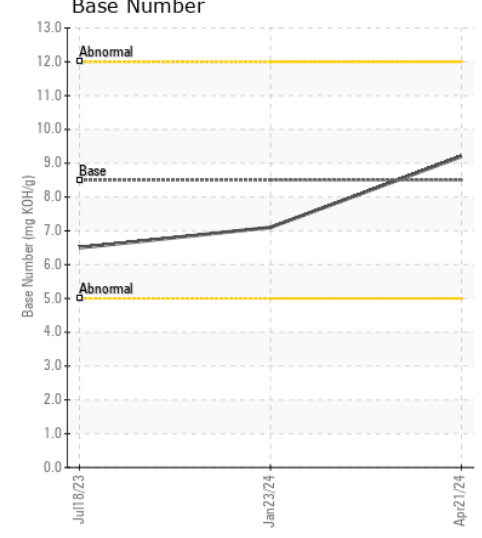
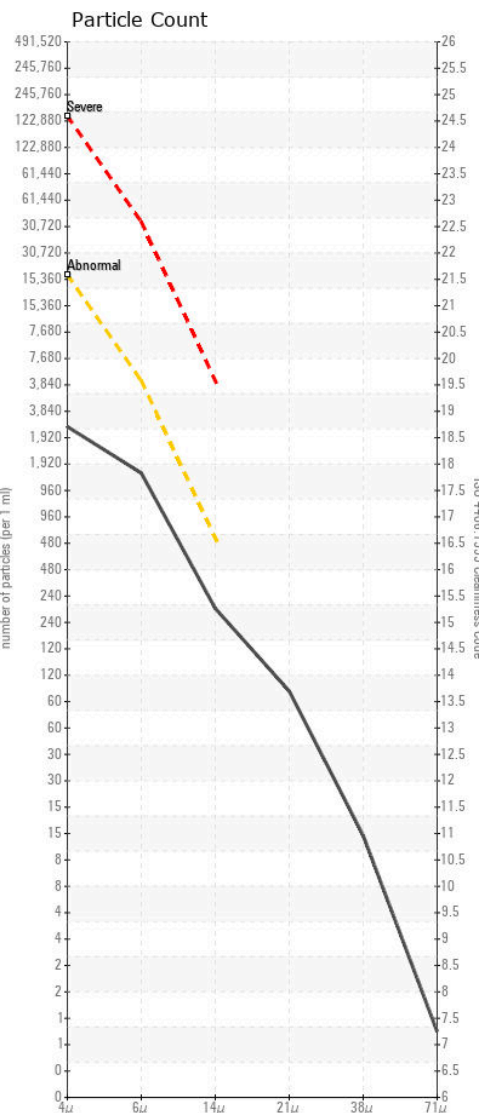
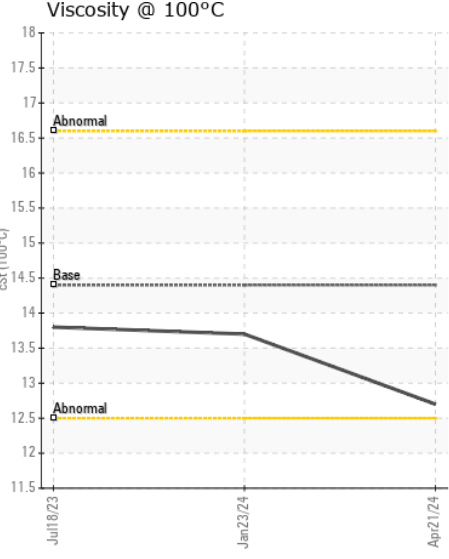
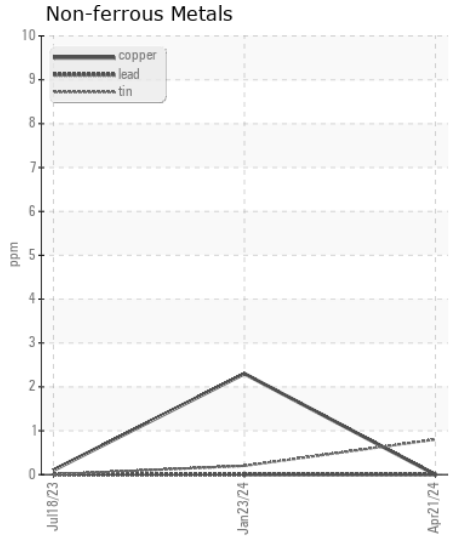
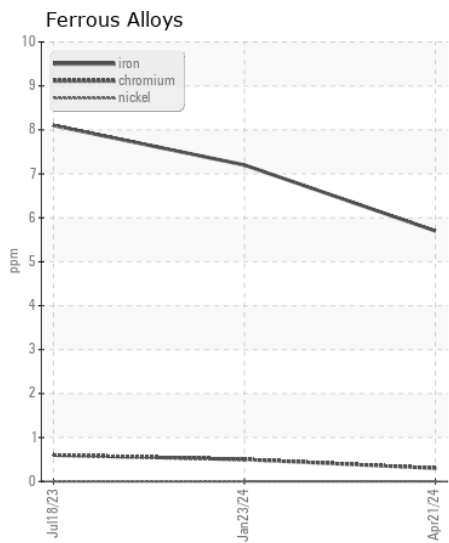
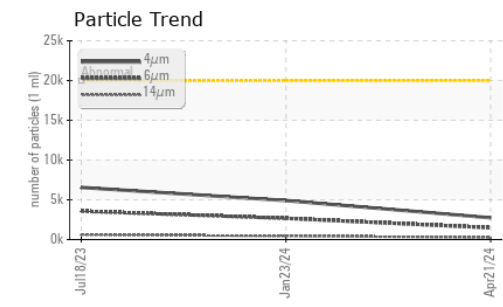
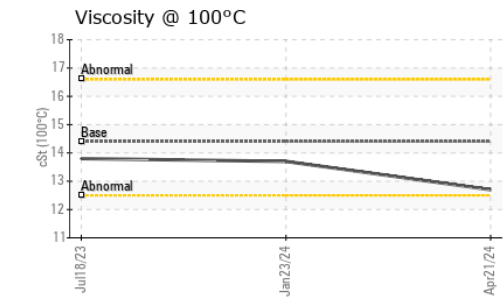
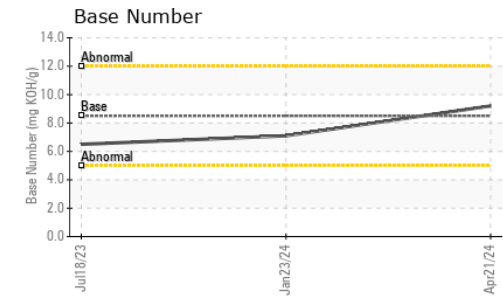
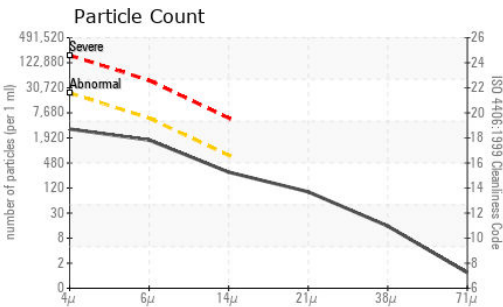
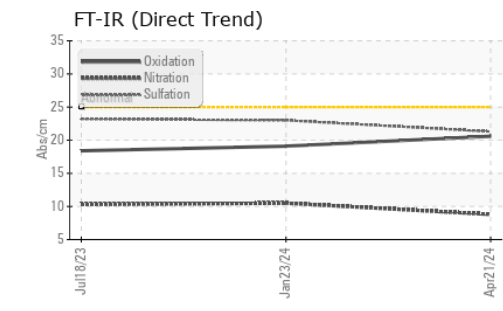
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	6	6
Potassium	ppm	ASTM D5185m	>20	1	15	1
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	0.4	0.4	0.3
Nitration	Abs/cm	*ASTM D7624	>20	8.8	10.5	10.3
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.3	23.0	23.2
Particles >4µm		ASTM D7647	>20000	2740	4907	6560
Particles >6µm		ASTM D7647	>5000	1493	2673	3573
Particles >14µm		ASTM D7647	>640	254	455	608
Particles >21µm		ASTM D7647	>160	86	153	205
Particles >38µm		ASTM D7647	>40	13	24	32
Particles >71µm		ASTM D7647	>10	1	2	3
Oil Cleanliness		ISO 4406 (c)	>21/19/16	19/18/15	19/19/16	20/19/16
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	>158	3	8	2
Boron	ppm	ASTM D5185m	250	29	30	40
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	48	10	3
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m	450	522	448	477
Calcium	ppm	ASTM D5185m	3000	1654	1786	2113
Phosphorus	ppm	ASTM D5185m	1150	817	984	1132
Zinc	ppm	ASTM D5185m	1350	909	1152	1372
Sulfur	ppm	ASTM D5185m	4250	2909	3369	5081
Oxidation	Abs/.1mm	*ASTM D7414	>25	20.6	19.1	18.4
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.2	7.1	6.5
Visc @ 100°C	cSt	ASTM D445	14.4	12.7	13.7	13.8



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0861703
Lab Number : 06156808
Unique Number : 10992231
Test Package : CONST (Additional Tests: PrtCount, TBN)
Received : 22 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 24 Apr 2024 - Sean Felton
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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