



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	ATTENTION



Area
Mobile Fleet
Machine Id
7302 7302
Component
Diesel Engine
Fluid
MOBIL 15W40 (8 GAL)

RECOMMENDATION

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		WC0919103	WC0573540	WC0462455
Sample Date		Client Info		12 Apr 2024	16 Apr 2021	14 May 2020
Machine Age	hrs	Client Info		713	4816	4573
Oil Age	hrs	Client Info		353	243	276
Filter Age	hrs	Client Info		353	243	276
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>100	23	9	12
Chromium	ppm	ASTM D5185m	>20	1	<1	<1
Nickel	ppm	ASTM D5185m	>2	0	<1	<1
Titanium	ppm	ASTM D5185m	>2	0	<1	<1
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>25	2	2	2
Lead	ppm	ASTM D5185m	>40	8	2	4
Copper	ppm	ASTM D5185m	>330	37	12	4
Tin	ppm	ASTM D5185m	>15	3	1	0
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

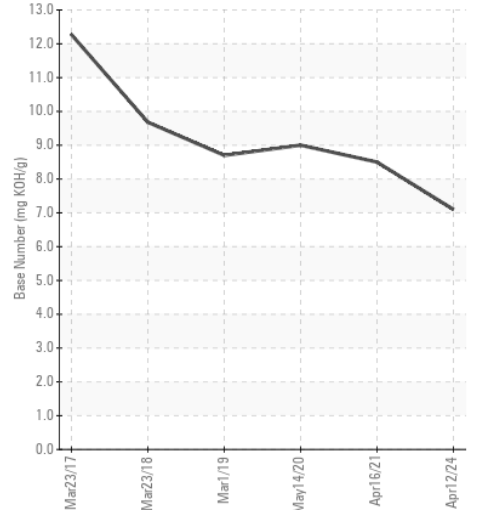
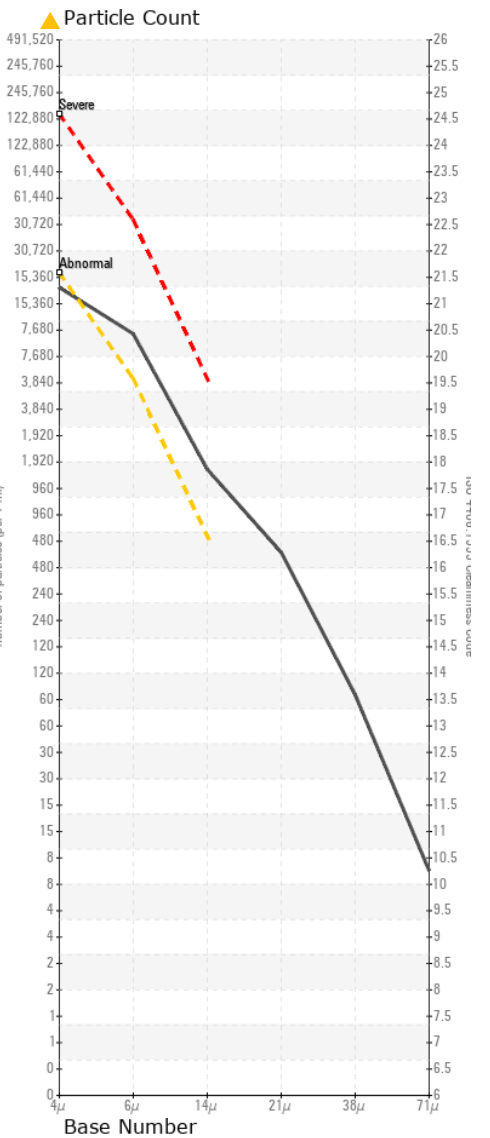
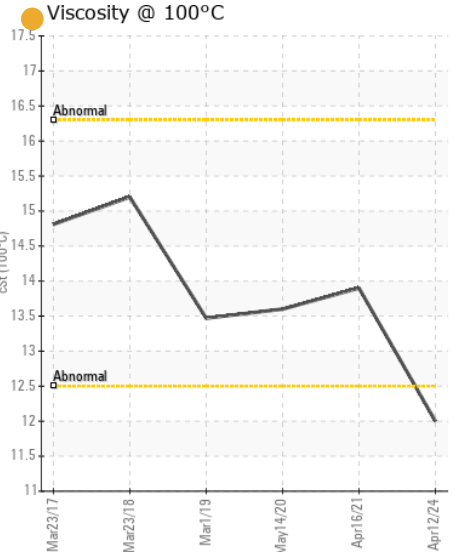
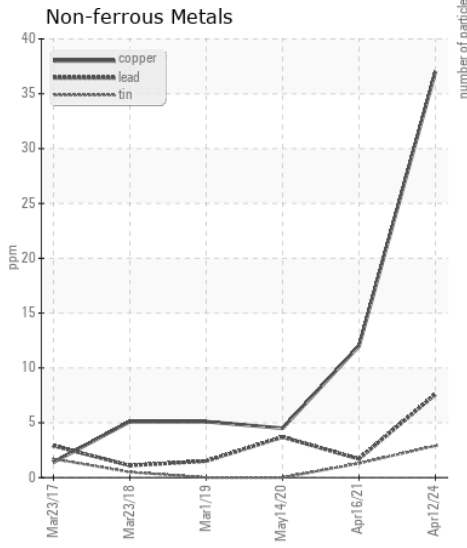
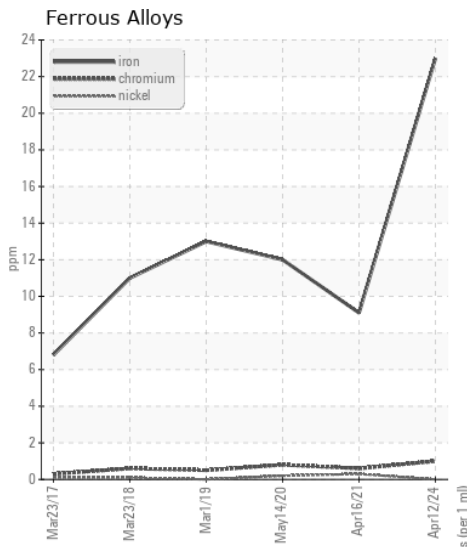
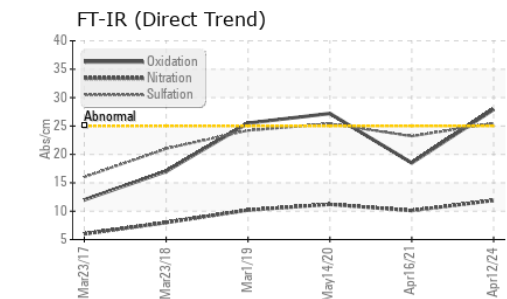
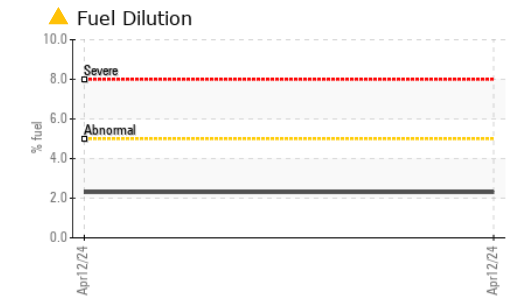
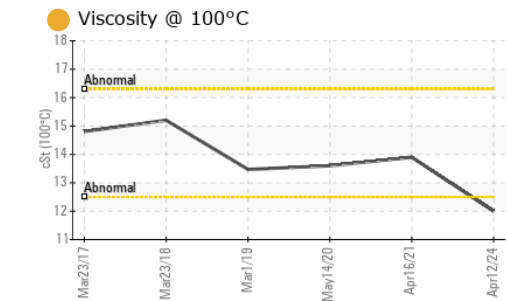
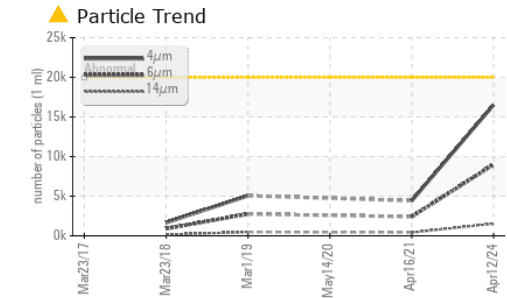
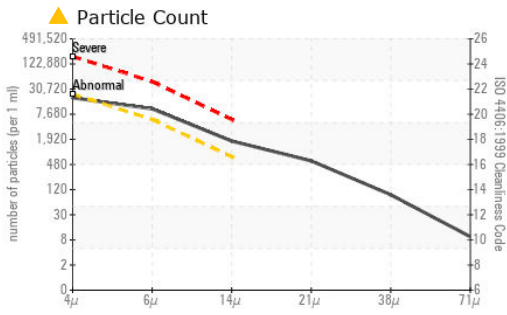
There is a high amount of particulates present in the oil. There is a light concentration of water present in the oil.

Silicon	ppm	ASTM D5185m	>25	4	<1	4
Potassium	ppm	ASTM D5185m	>20	0	4	1
Fuel	%	ASTM D3524	>5	▲ 2.3	<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	0.2
Nitration	Abs/cm	*ASTM D7624	>20	11.9	10.1	11.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	25.5	23.2	25.4
Particles >4µm		ASTM D7647	>20000	16503	4426	---
Particles >6µm		ASTM D7647	>5000	▲ 8990	2411	---
Particles >14µm		ASTM D7647	>640	▲ 1530	410	---
Particles >21µm		ASTM D7647	>160	▲ 515	138	---
Particles >38µm		ASTM D7647	>40	▲ 80	21	---
Particles >71µm		ASTM D7647	>10	8	2	---
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 21/20/18	19/18/16	---
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 oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m	>118	4	3	4
Boron	ppm	ASTM D5185m		42	87	50
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		33	10	37
Manganese	ppm	ASTM D5185m		<1	<1	<1
Magnesium	ppm	ASTM D5185m		557	817	595
Calcium	ppm	ASTM D5185m		1574	1579	1791
Phosphorus	ppm	ASTM D5185m		759	836	737
Zinc	ppm	ASTM D5185m		959	963	910
Sulfur	ppm	ASTM D5185m		3413	3045	2084
Oxidation	Abs/.1mm	*ASTM D7414	>25	27.9	18.5	27.2
Base Number (BN)	mg KOH/g	ASTM D2896		7.1	8.5	9
Visc @ 100°C	cSt	ASTM D445		● 12.0	13.9	13.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0919103
Lab Number : 06150193
Unique Number : 10980271
Test Package : CONST (Additional Tests: FuelDilution, PercentFuel, PrtCount, TBN)

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

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)