



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
Mobile Fleet
 Machine Id
873 873
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 10W30 (8 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0956033	WC0861844	WC0808742
Sample Date		Client Info		10 Jul 2024	14 Feb 2024	07 Aug 2023
Machine Age	hrs	Client Info		6523	6203	5867
Oil Age	hrs	Client Info		319	337	411
Filter Age	hrs	Client Info		319	337	411
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>85	12	13	23
Chromium	ppm	ASTM D5185m	>4	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m	>2	<1	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>15	2	1	<1
Lead	ppm	ASTM D5185m	>20	<1	0	<1
Copper	ppm	ASTM D5185m	>250	2	2	2
Tin	ppm	ASTM D5185m	>5	<1	<1	<1
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

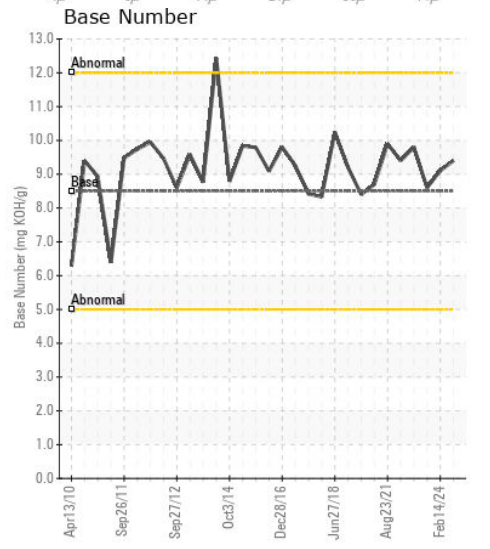
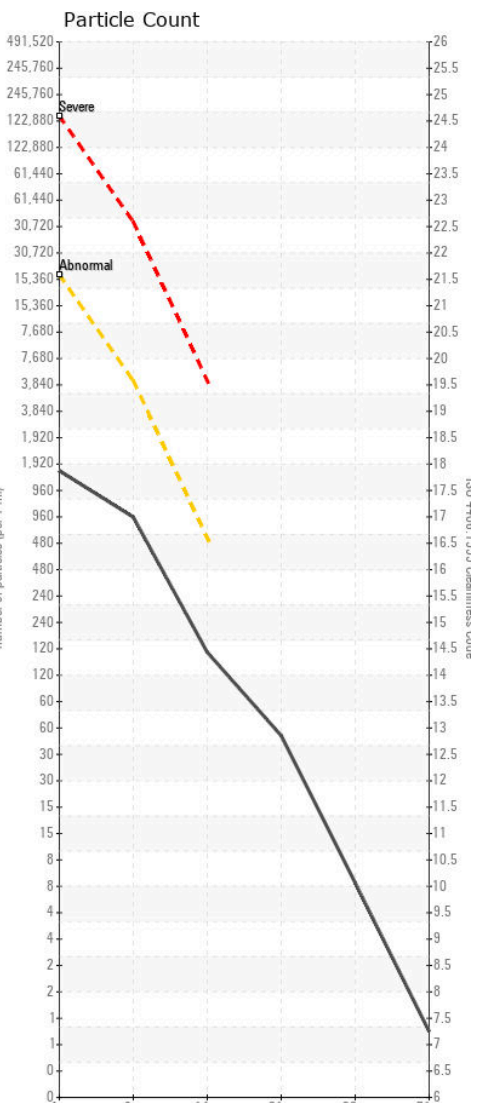
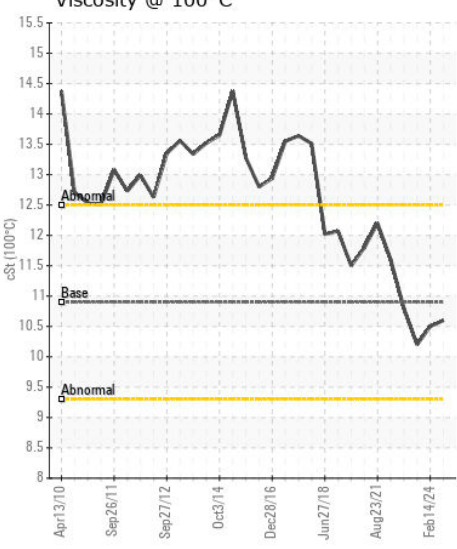
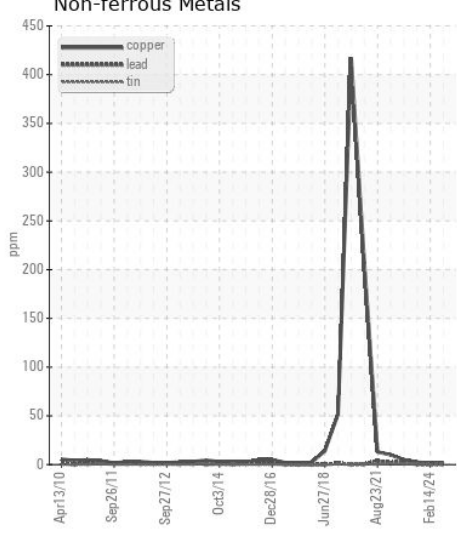
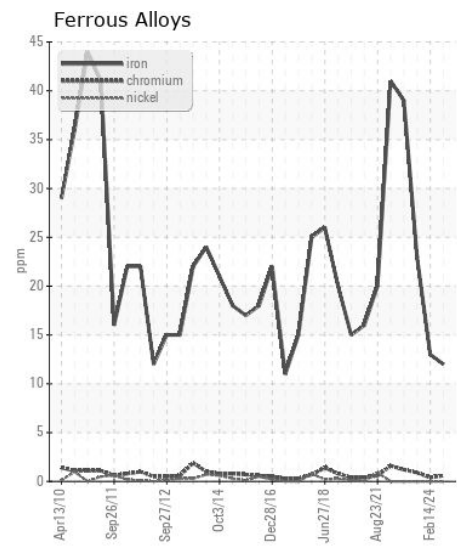
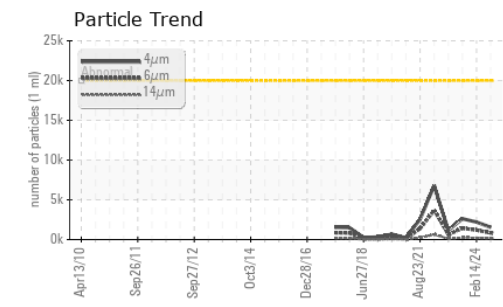
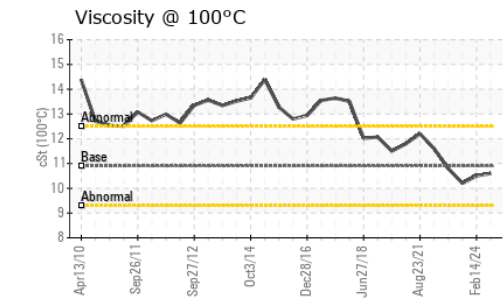
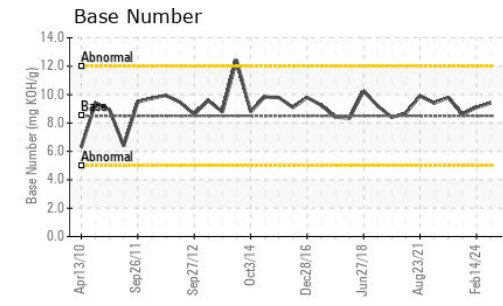
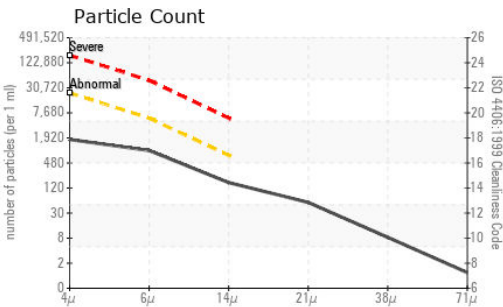
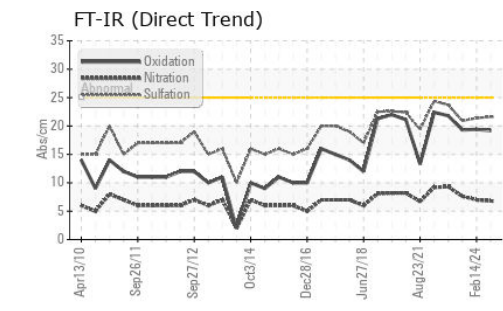
The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	4	7	7
Potassium	ppm	ASTM D5185m	>20	2	0	<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	0.3	0.3	0.3
Nitration	Abs/cm	*ASTM D7624	>20	6.8	7.0	7.6
Sulfation	Abs/.1mm	*ASTM D7415	>30	21.6	21.4	20.9
Particles >4µm		ASTM D7647	>20000	1540	2201	2627
Particles >6µm		ASTM D7647	>5000	839	1199	1431
Particles >14µm		ASTM D7647	>640	143	204	244
Particles >21µm		ASTM D7647	>160	48	69	82
Particles >38µm		ASTM D7647	>40	7	11	13
Particles >71µm		ASTM D7647	>10	1	1	1
Oil Cleanliness		ISO 4406 (c)	>21/19/16	18/17/14	18/17/15	19/18/15
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	4	5
Boron	ppm	ASTM D5185m	250	42	49	39
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	44	41	45
Manganese	ppm	ASTM D5185m		0	0	<1
Magnesium	ppm	ASTM D5185m	450	491	492	557
Calcium	ppm	ASTM D5185m	3000	1671	1567	1616
Phosphorus	ppm	ASTM D5185m	1150	766	733	754
Zinc	ppm	ASTM D5185m	1350	888	856	927
Sulfur	ppm	ASTM D5185m	4250	2216	2315	2946
Oxidation	Abs/.1mm	*ASTM D7414	>25	19.2	19.4	19.3
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	9.4	9.1	8.6
Visc @ 100°C	cSt	ASTM D445	10.9	10.6	10.5	10.2



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0956033 **Received** : 12 Jul 2024
Lab Number : 06234749 **Tested** : 15 Jul 2024
Unique Number : 11123583 **Diagnosed** : 15 Jul 2024 - Don Baldridge
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