



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ATTENTION
FLUID CONDITION	NORMAL

Area

Mobile Fleet

Machine Id

6407 6407

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 10W30 (10 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0918959	WC0902767	WC0885852
Sample Date		Client Info		16 Apr 2024	16 Feb 2024	13 Dec 2023
Machine Age	hrs	Client Info		17997	17724	17466
Oil Age	hrs	Client Info		531	258	318
Filter Age	hrs	Client Info		531	258	318
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	Not Changd	Changed
Sample Status				ATTENTION	ABNORMAL	ABNORMAL

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>65	25	12	23
Chromium	ppm	ASTM D5185m	>5	<1	<1	<1
Nickel	ppm	ASTM D5185m	>3	0	0	0
Titanium	ppm	ASTM D5185m	>5	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>35	12	8	10
Lead	ppm	ASTM D5185m	>10	<1	0	<1
Copper	ppm	ASTM D5185m	>180	2	2	2
Tin	ppm	ASTM D5185m	>8	<1	0	0
Vanadium	ppm	ASTM D5185m		<1	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

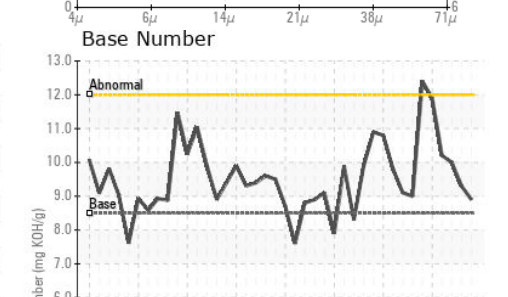
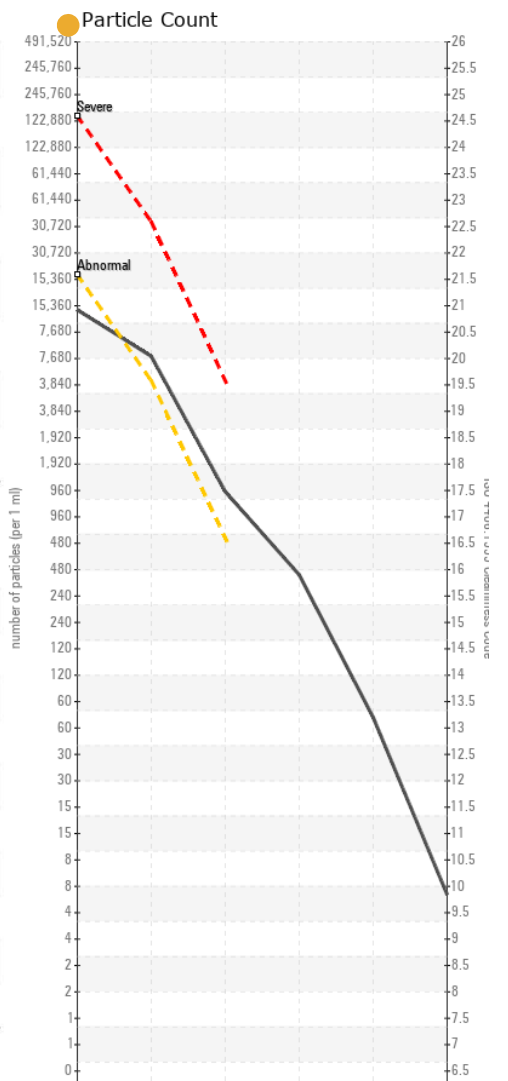
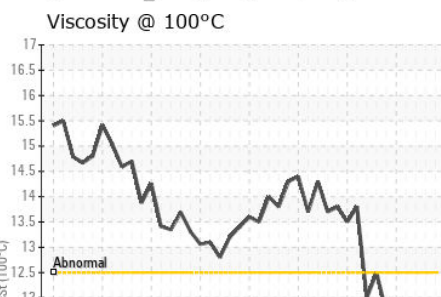
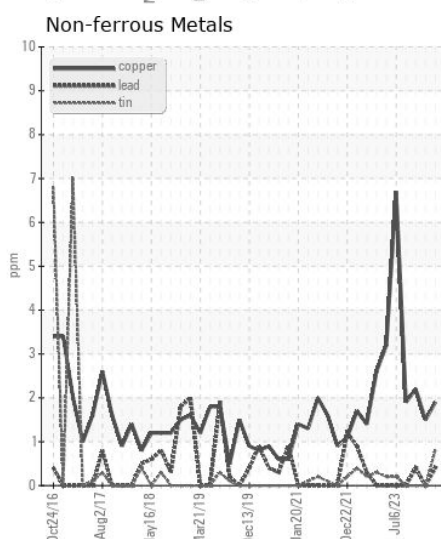
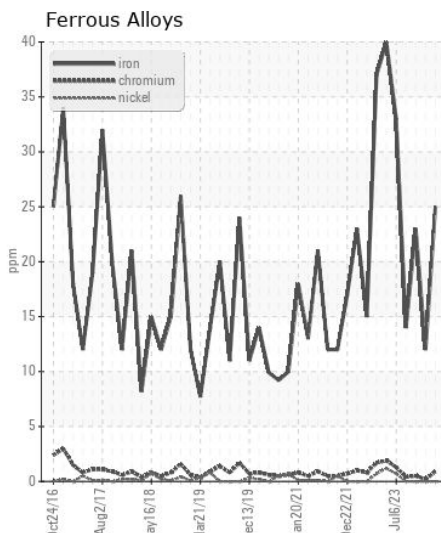
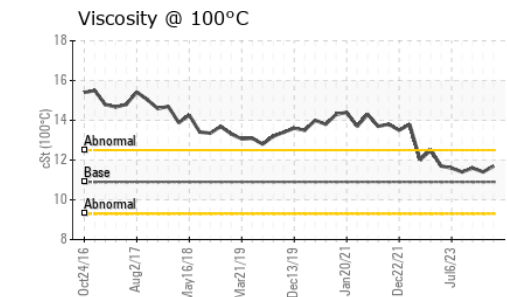
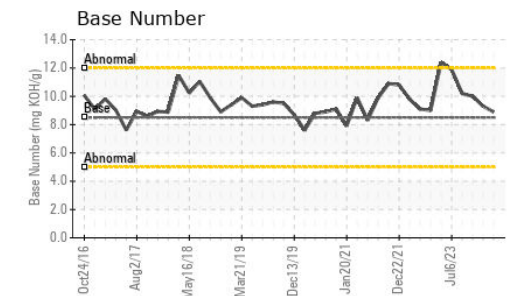
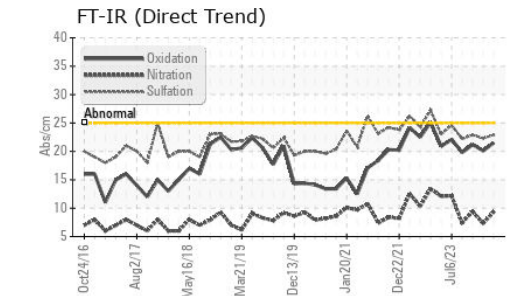
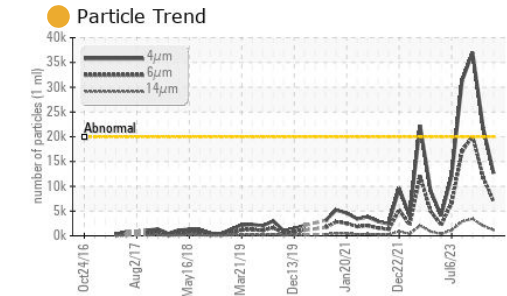
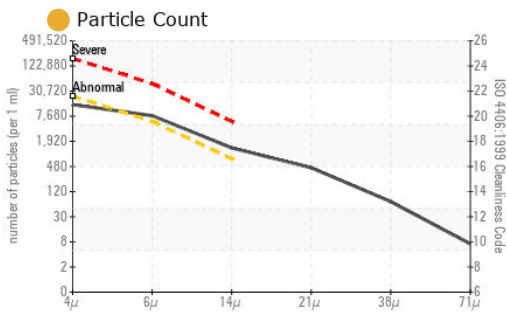
There is a moderate amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>15	8	5	9
Potassium	ppm	ASTM D5185m	>20	38	34	▲ 131
Fuel		WC Method	>3.0	<1.0	<1.0	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol	%	*ASTM D2982		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.4	0.9
Nitration	Abs/cm	*ASTM D7624	>20	9.3	7.3	9.4
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.9	22.3	22.9
Particles >4µm		ASTM D7647	>20000	12632	▲ 21862	▲ 37008
Particles >6µm		ASTM D7647	>5000	● 6881	▲ 11910	▲ 20161
Particles >14µm		ASTM D7647	>640	● 1171	▲ 2027	▲ 3431
Particles >21µm		ASTM D7647	>160	● 394	▲ 683	▲ 1156
Particles >38µm		ASTM D7647	>40	● 61	▲ 105	▲ 178
Particles >71µm		ASTM D7647	>10	6	▲ 11	▲ 18
Oil Cleanliness		ISO 4406 (c)	>21/19/16	● 21/20/17	▲ 22/21/18	▲ 22/22/19
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		35	26	▲ 118
Boron	ppm	ASTM D5185m	250	34	46	28
Barium	ppm	ASTM D5185m	10	0	3	0
Molybdenum	ppm	ASTM D5185m	100	50	47	64
Manganese	ppm	ASTM D5185m		<1	0	<1
Magnesium	ppm	ASTM D5185m	450	520	456	546
Calcium	ppm	ASTM D5185m	3000	1811	1528	1778
Phosphorus	ppm	ASTM D5185m	1150	796	769	808
Zinc	ppm	ASTM D5185m	1350	888	841	913
Sulfur	ppm	ASTM D5185m	4250	2909	2599	2541
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.5	20.1	21.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.9	9.3	10.0
Visc @ 100°C	cSt	ASTM D445	10.9	11.7	11.4	11.6



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0918959 **Received** : 19 Apr 2024
Lab Number : **06154186** **Tested** : 23 Apr 2024
Unique Number : 10989609 **Diagnosed** : 23 Apr 2024 - Don Baldrige
Test Package : CONST (Additional Tests: Glycol, 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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