



OIL ANALYSIS REPORT

WEAR	ABNORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL



Area
Mobile Fleet
Machine Id
5516 5516
Component
Diesel Engine
Fluid
MOBIL DELVAC 1300 SUPER15W40 (5 GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. We recommend an early resample to monitor this condition.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0861812	WC0744706	WC0657826
Sample Date		Client Info		06 Feb 2024	21 Oct 2022	19 Jan 2022
Machine Age	hrs	Client Info		10416	9426	8631
Oil Age	hrs	Client Info		990	806	584
Filter Age	hrs	Client Info		990	806	584
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL

WEAR

Cylinder, crank, or cam shaft wear is indicated. Valve wear is indicated.

Iron	ppm	ASTM D5185m	>51	▲ 94	▲ 80	▲ 70
Chromium	ppm	ASTM D5185m	>11	2	2	2
Nickel	ppm	ASTM D5185m	>5	▲ 35	2	0
Titanium	ppm	ASTM D5185m		<1	<1	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>31	8	7	5
Lead	ppm	ASTM D5185m	>26	4	18	6
Copper	ppm	ASTM D5185m	>26	4	6	3
Tin	ppm	ASTM D5185m	>4	3	5	2
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

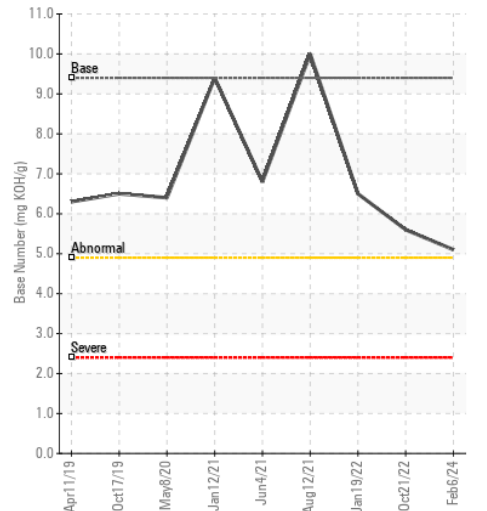
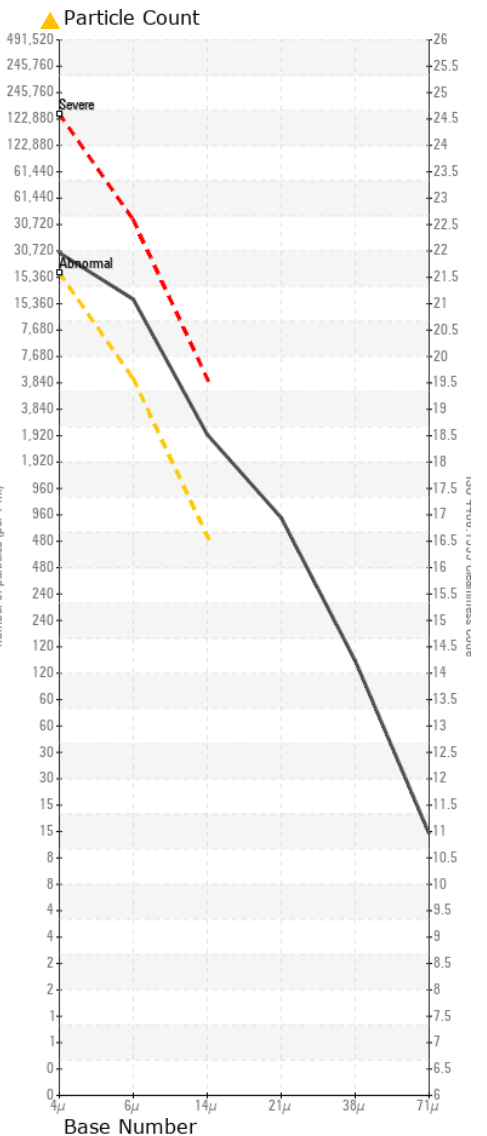
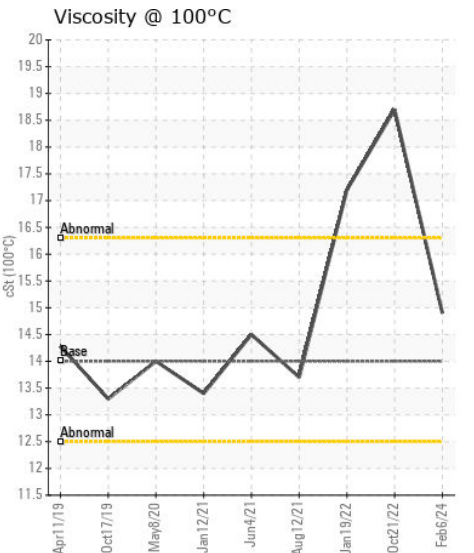
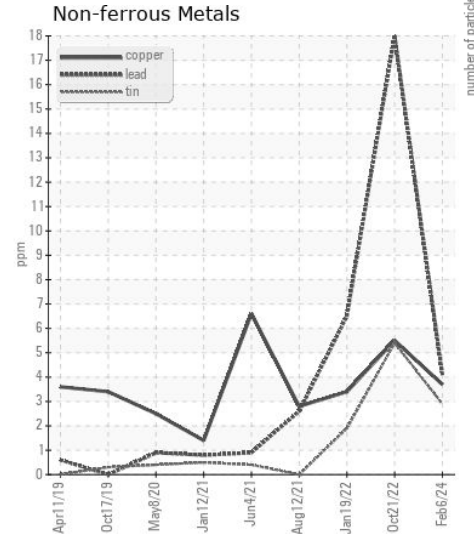
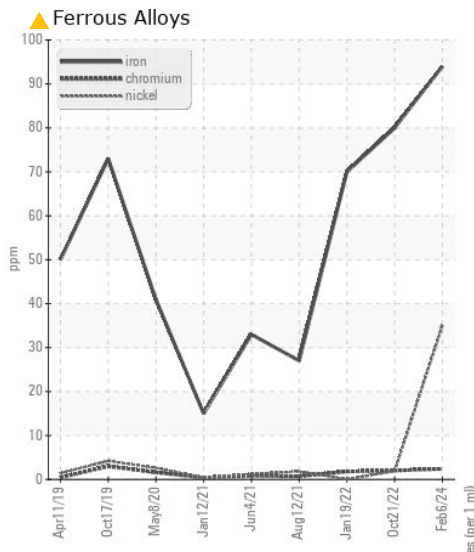
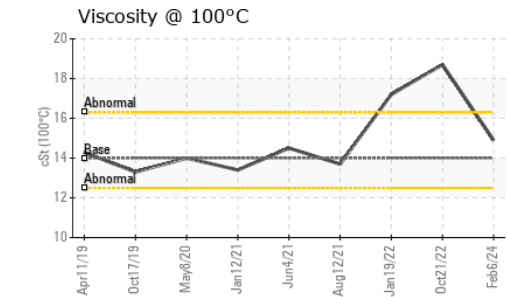
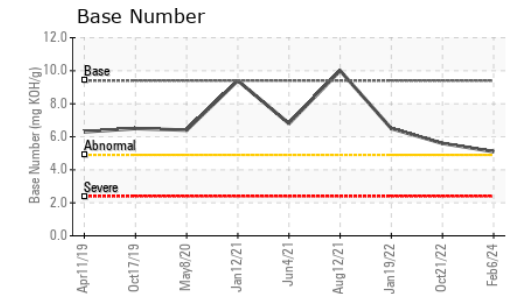
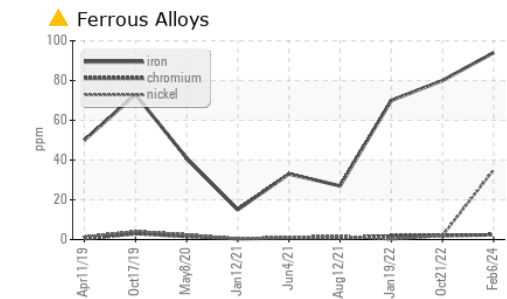
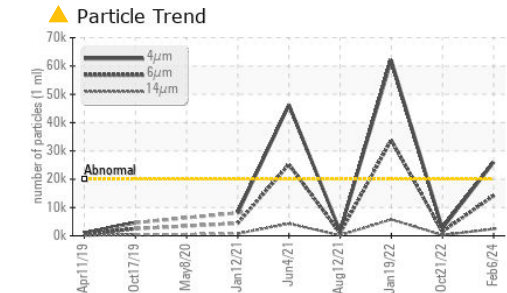
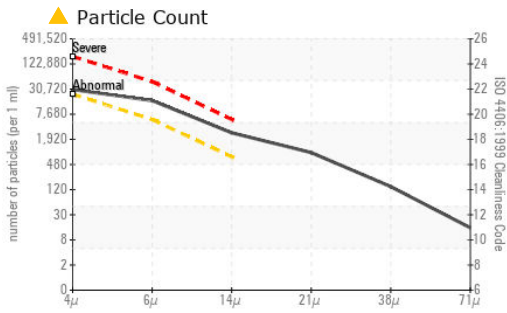
There is a high amount of particulates present in the oil.

Silicon	ppm	ASTM D5185m	>22	9	11	7
Potassium	ppm	ASTM D5185m	>20	2	0	<1
Fuel		WC Method	>2.1	<1.0	<1.0	<1.0
Water		WC Method	>0.21	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>3	0.7	0.7	1.1
Nitration	Abs/cm	*ASTM D7624	>20	15.4	19.7	17.8
Sulfation	Abs/.1mm	*ASTM D7415	>30	30.0	40.2	35.5
Particles >4µm		ASTM D7647	>20000	▲ 25968	2649	▲ 62079
Particles >6µm		ASTM D7647	>5000	▲ 14147	1443	▲ 33818
Particles >14µm		ASTM D7647	>640	▲ 2408	246	▲ 5755
Particles >21µm		ASTM D7647	>160	▲ 811	83	▲ 1939
Particles >38µm		ASTM D7647	>40	▲ 125	13	▲ 299
Particles >71µm		ASTM D7647	>10	▲ 13	1	▲ 31
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 22/21/18	19/18/15	▲ 23/22/20
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	>0.21	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	>31	6	6	6
Boron	ppm	ASTM D5185m	0	39	38	40
Barium	ppm	ASTM D5185m	0	<1	0	<1
Molybdenum	ppm	ASTM D5185m	0	62	63	46
Manganese	ppm	ASTM D5185m		3	1	<1
Magnesium	ppm	ASTM D5185m	0	614	789	638
Calcium	ppm	ASTM D5185m		1847	2123	2036
Phosphorus	ppm	ASTM D5185m		893	1011	849
Zinc	ppm	ASTM D5185m		1081	1304	1122
Sulfur	ppm	ASTM D5185m		2518	3279	2271
Oxidation	Abs/.1mm	*ASTM D7414	>25	35.0	51.9	44.6
Base Number (BN)	mg KOH/g	ASTM D2896	9.4	5.1	5.6	6.5
Visc @ 100°C	cSt	ASTM D445	14	14.9	▲ 18.7	▲ 17.2



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0861812 **Received** : 08 Feb 2024
Lab Number : 06083513 **Tested** : 09 Feb 2024
Unique Number : 10870958 **Diagnosed** : 12 Feb 2024 - Jonathan Hester
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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