



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area

Contracting

Machine Id

8002 8002

Component

Diesel Engine

Fluid

DIESEL ENGINE OIL SAE 10W30 (10 GAL)

RECOMMENDATION

We recommend you service the filters on this component. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0947751	WC0918694	WC0902768
Sample Date		Client Info		24 Jun 2024	22 Apr 2024	16 Feb 2024
Machine Age	hrs	Client Info		10052	9619	9208
Oil Age	hrs	Client Info		255	841	430
Filter Age	hrs	Client Info		255	578	430
Oil Changed		Client Info		Not Chngd	Changed	Not Chngd
Filter Changed		Client Info		Not Chngd	Changed	Not Chngd
Sample Status				ABNORMAL	ABNORMAL	ATTENTION

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>90	6	24	9
Chromium	ppm	ASTM D5185m	>20	<1	2	<1
Nickel	ppm	ASTM D5185m	>2	0	1	0
Titanium	ppm	ASTM D5185m	>2	0	<1	0
Silver	ppm	ASTM D5185m	>2	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	2	4	1
Lead	ppm	ASTM D5185m	>40	<1	13	2
Copper	ppm	ASTM D5185m	>330	<1	2	<1
Tin	ppm	ASTM D5185m	>15	0	2	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

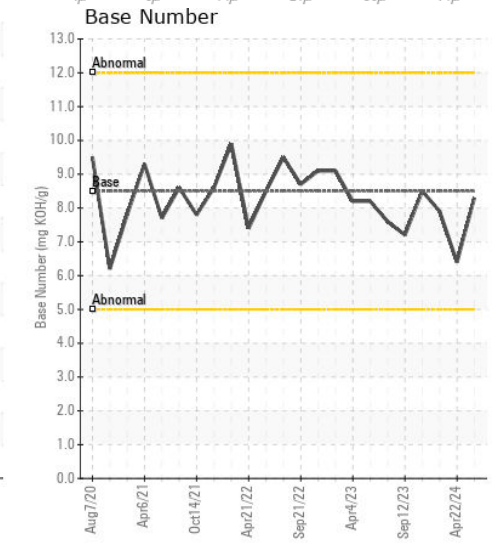
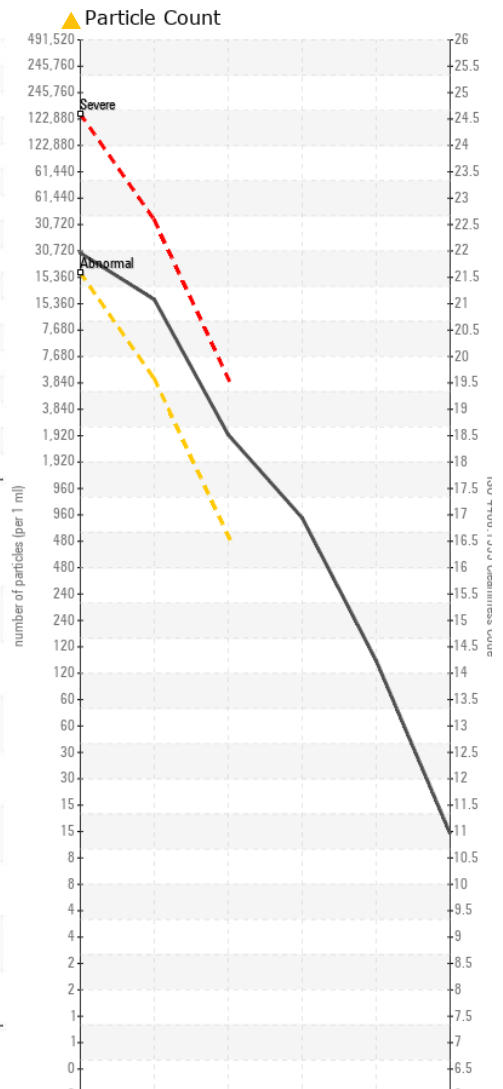
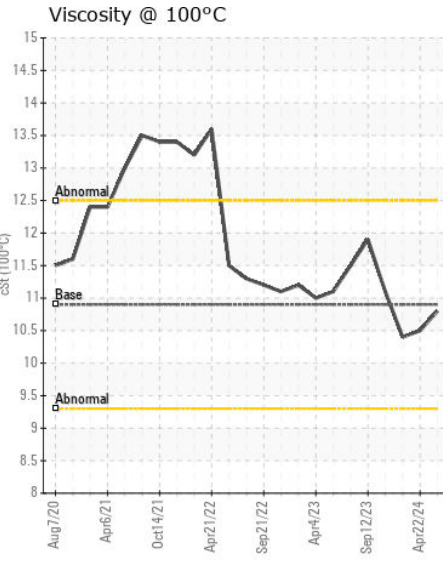
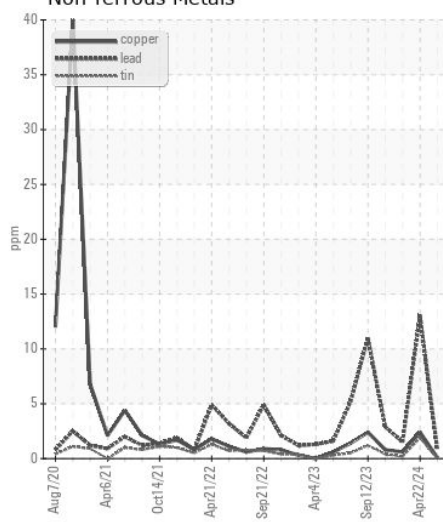
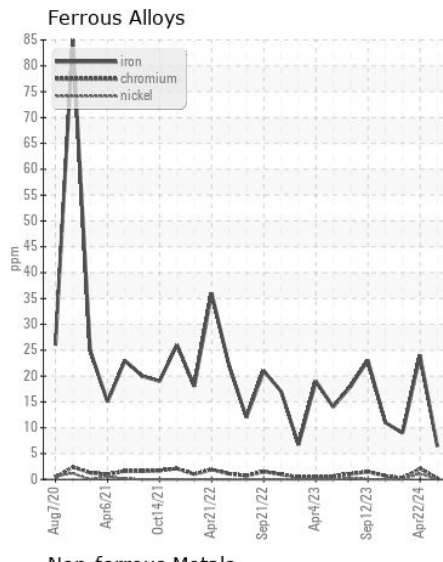
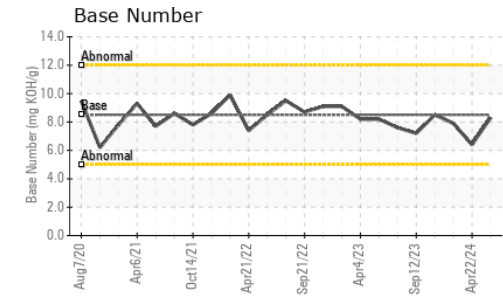
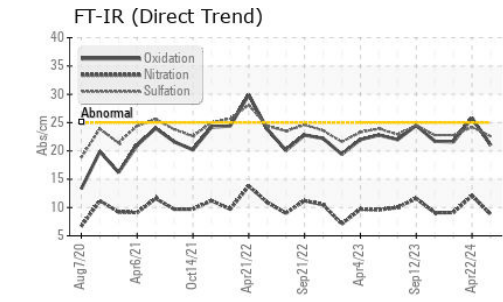
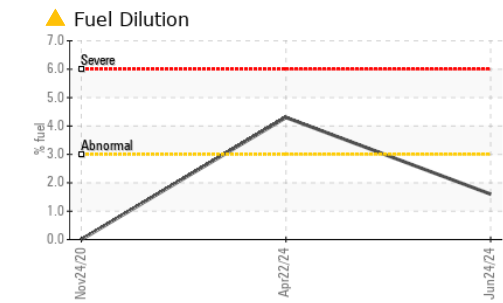
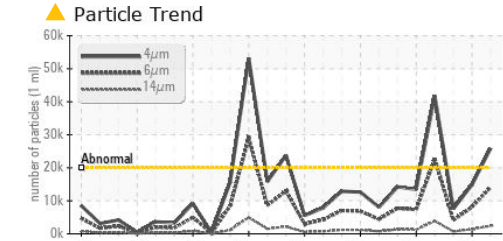
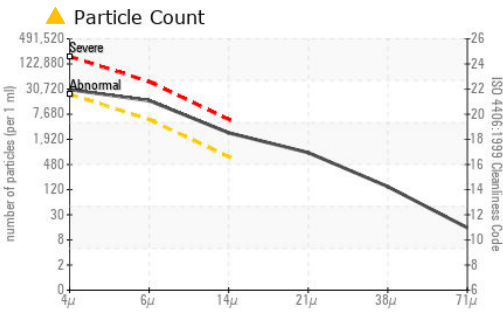
There is a high amount of particulates present in the oil. Light fuel dilution occurring.

Silicon	ppm	ASTM D5185m	>25	6	10	6
Potassium	ppm	ASTM D5185m	>20	2	4	3
Fuel	%	ASTM D3524	>3.0	▲ 1.6	▲ 4.3	<1.0
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844	>6	0.3	0.7	0.4
Nitration	Abs/cm	*ASTM D7624	>20	8.8	12.1	9.1
Sulfation	Abs/.1mm	*ASTM D7415	>30	22.6	24.2	22.8
Particles >4µm		ASTM D7647	>20000	▲ 25890	14885	7612
Particles >6µm		ASTM D7647	>5000	▲ 14104	▲ 8109	4147
Particles >14µm		ASTM D7647	>640	▲ 2400	▲ 1380	706
Particles >21µm		ASTM D7647	>160	▲ 809	▲ 465	238
Particles >38µm		ASTM D7647	>40	▲ 125	▲ 72	37
Particles >71µm		ASTM D7647	>10	▲ 13	7	4
Oil Cleanliness		ISO 4406 (c)	>21/19/16	▲ 22/21/18	▲ 21/20/18	20/19/17
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		1	<1	0
Boron	ppm	ASTM D5185m	250	32	33	42
Barium	ppm	ASTM D5185m	10	0	<1	3
Molybdenum	ppm	ASTM D5185m	100	47	52	46
Manganese	ppm	ASTM D5185m		0	1	0
Magnesium	ppm	ASTM D5185m	450	479	460	439
Calcium	ppm	ASTM D5185m	3000	1574	1602	1522
Phosphorus	ppm	ASTM D5185m	1150	621	648	755
Zinc	ppm	ASTM D5185m	1350	920	856	822
Sulfur	ppm	ASTM D5185m	4250	2205	2236	2541
Oxidation	Abs/.1mm	*ASTM D7414	>25	21.0	25.8	21.6
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	8.3	6.4	7.9
Visc @ 100°C	cSt	ASTM D445	10.9	10.8	▲ 10.5	10.4



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : WC0947751 **Received** : 26 Jun 2024
Lab Number : 06221069 **Tested** : 01 Jul 2024
Unique Number : 11099266 **Diagnosed** : 01 Jul 2024 - Jonathan Hester
Test Package : CONST (Additional Tests: PercentFuel, 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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