



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL



Machine Id
BELL B45E B93A645EC03007715
 Component
Diesel Engine
 Fluid
DIESEL ENGINE OIL SAE 15W40 (10 GAL)

RECOMMENDATION

Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		BE0004608	BE0004598	BE0004594
Sample Date		Client Info		17 Jun 2024	27 Sep 2023	17 May 2023
Machine Age	hrs	Client Info		2500	1909	1434
Oil Age	hrs	Client Info		0	0	0
Filter Age	hrs	Client Info		0	0	0
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.

PQ		ASTM D8184	>79	18	16	11
Iron	ppm	ASTM D5185m	>100	47	16	28
Chromium	ppm	ASTM D5185m	>20	3	2	2
Nickel	ppm	ASTM D5185m	>4	0	<1	1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	10	6	8
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	31	30	66
Tin	ppm	ASTM D5185m	>15	0	1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE

CONTAMINATION

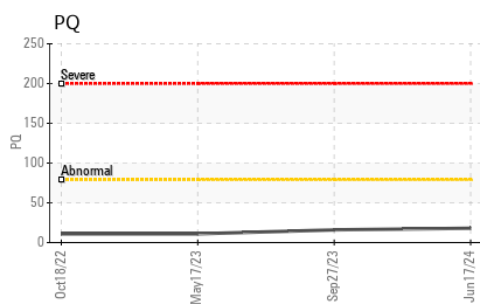
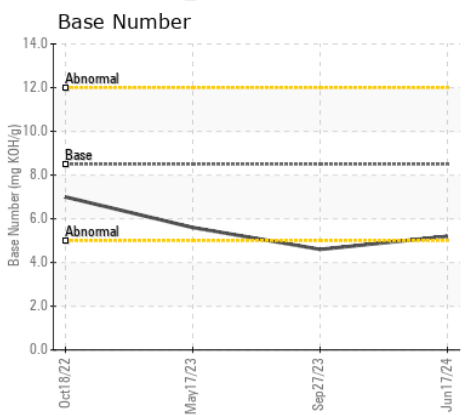
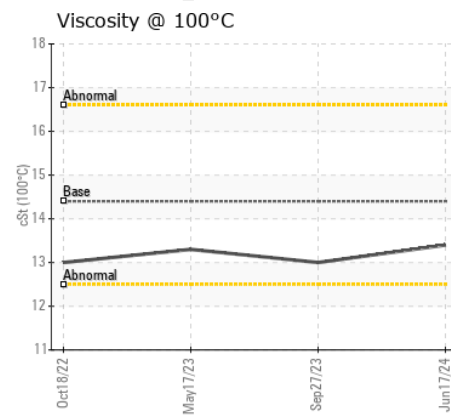
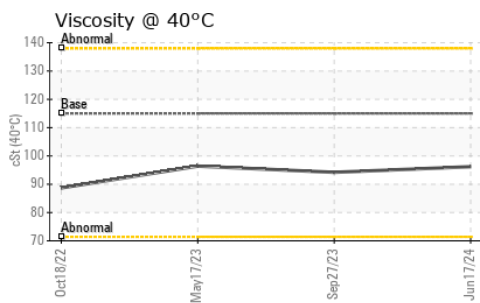
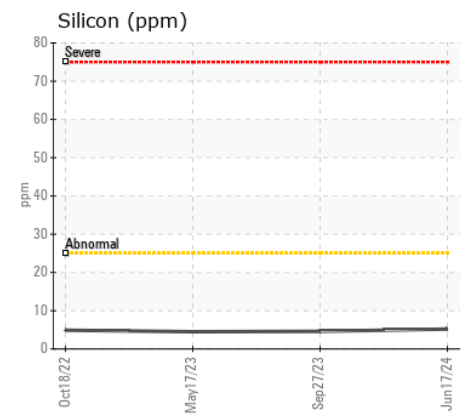
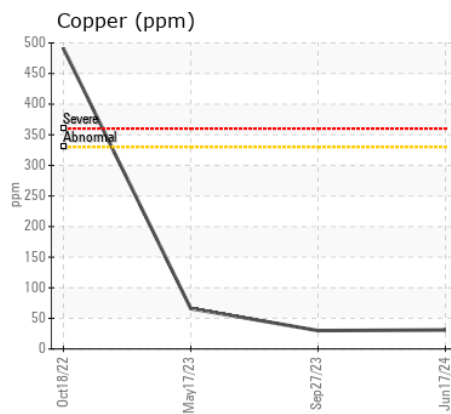
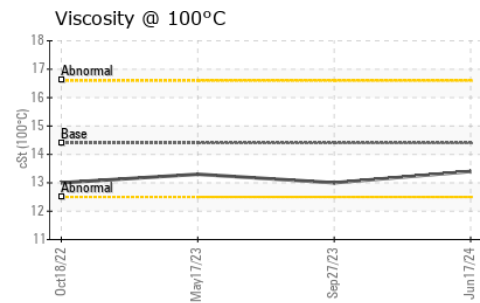
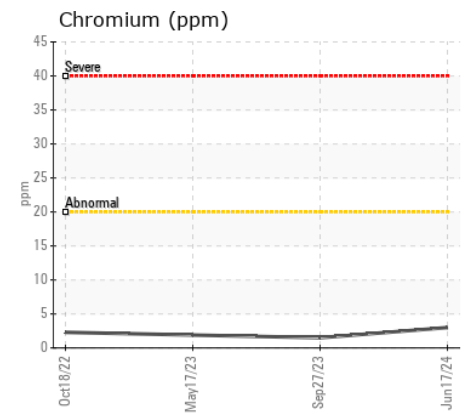
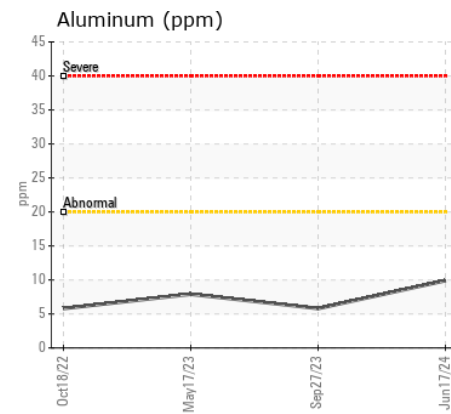
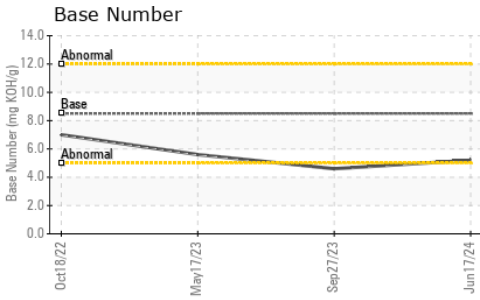
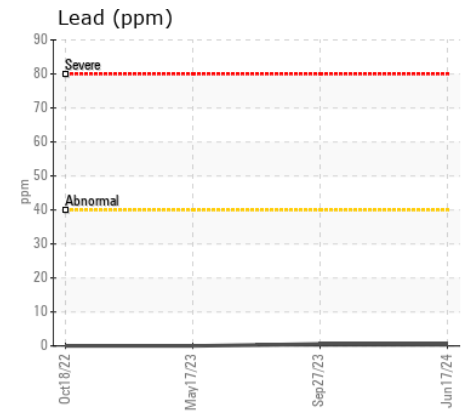
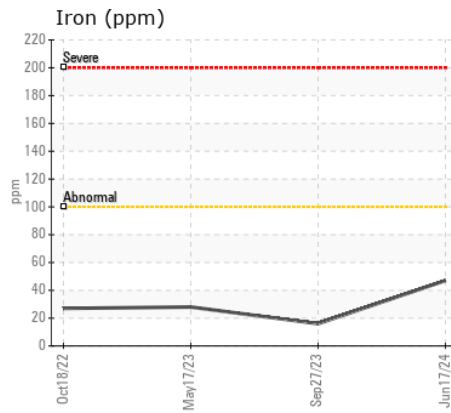
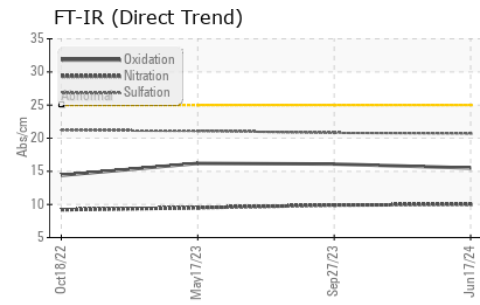
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	5	5	4
Potassium	ppm	ASTM D5185m	>20	4	5	4
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	0.8	0.7	0.6
Nitration	Abs/cm	*ASTM D7624	>20	10.0	9.9	9.5
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.7	20.8	21.1
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	>158	2	3	0
Boron	ppm	ASTM D5185m	250	31	16	40
Barium	ppm	ASTM D5185m	10	0	0	0
Molybdenum	ppm	ASTM D5185m	100	90	80	66
Manganese	ppm	ASTM D5185m		1	<1	<1
Magnesium	ppm	ASTM D5185m	450	101	86	99
Calcium	ppm	ASTM D5185m	3000	2342	1972	2103
Phosphorus	ppm	ASTM D5185m	1150	1007	892	908
Zinc	ppm	ASTM D5185m	1350	1237	1125	1120
Sulfur	ppm	ASTM D5185m	4250	3720	2822	3269
Oxidation	Abs/.1mm	*ASTM D7414	>25	15.5	16.1	16.2
Base Number (BN)	mg KOH/g	ASTM D2896	8.5	5.2	4.6	5.6
Visc @ 40°C	cSt	ASTM D445	115	96.2	94.2	96.4
Visc @ 100°C	cSt	ASTM D445	14.4	13.4	13.0	13.3
Viscosity Index (VI)	Scale	ASTM D2270	126	139	135	137



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : BE0004608
Lab Number : 06231141
Unique Number : 11114634
Test Package : MOBCE

Received : 08 Jul 2024
Tested : 10 Jul 2024
Diagnosed : 10 Jul 2024 - Jonathan Hester

Newman Tractor
 2841 Verona Road
 Verona, KY
 US 41092

Contact: Justin Newman
 justin@newmantractor.com

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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