



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Machine Id
A-406
 Component
Diesel Engine
 Fluid
DURAMAX 15W40 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC0031964	DC0029727	DC0020495
Sample Date		Client Info		04 May 2024	09 Aug 2023	06 Mar 2023
Machine Age	hrs	Client Info		10787	9086	15517
Oil Age	hrs	Client Info		814	636	808
Filter Age	hrs	Client Info		814	636	808
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	>100	11	11	37
Chromium	ppm	ASTM D5185m	>20	<1	<1	2
Nickel	ppm	ASTM D5185m	>4	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	5	8
Lead	ppm	ASTM D5185m	>40	0	0	<1
Copper	ppm	ASTM D5185m	>330	<1	<1	3
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

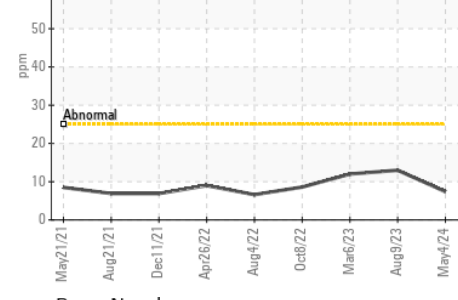
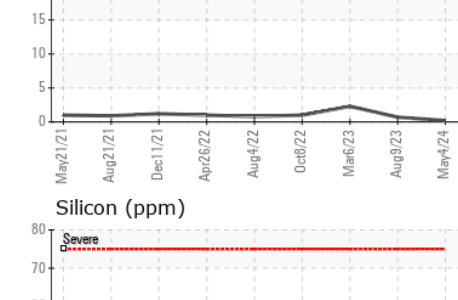
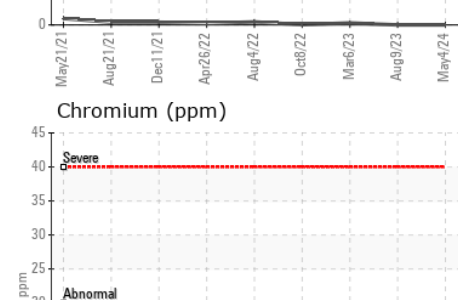
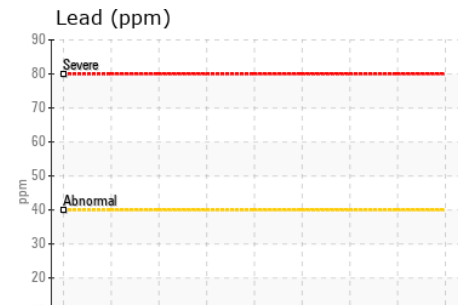
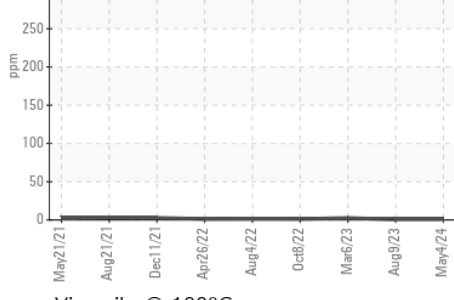
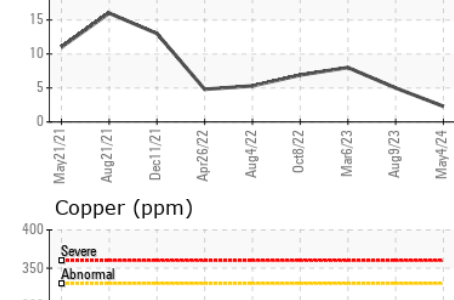
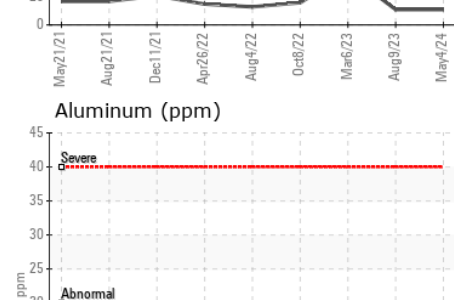
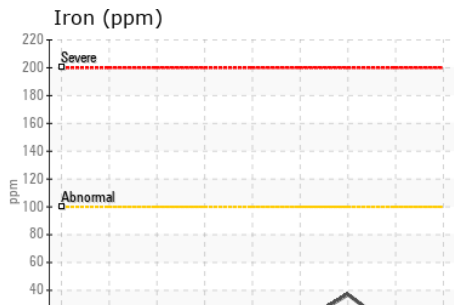
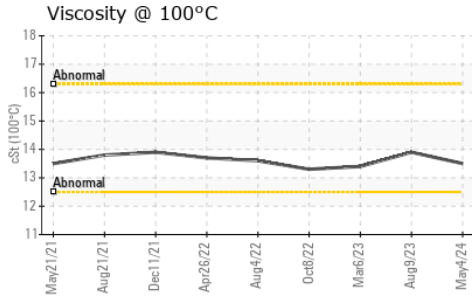
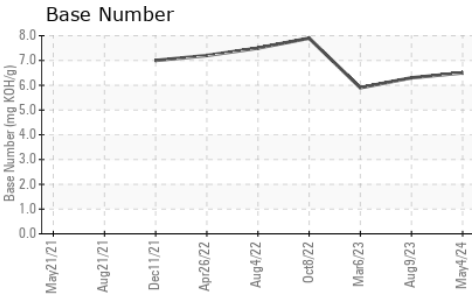
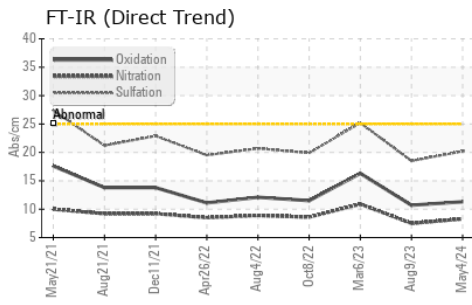
There is no indication of any contamination in the oil.

Silicon	ppm	ASTM D5185m	>25	7	13	12
Potassium	ppm	ASTM D5185m	>20	7	3	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	0.7	0.5	0.7
Nitration	Abs/cm	*ASTM D7624	>20	8.3	7.5	10.9
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.2	18.5	25.2
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	3
Boron	ppm	ASTM D5185m		4	1	<1
Barium	ppm	ASTM D5185m		0	0	0
Molybdenum	ppm	ASTM D5185m		4	5	4
Manganese	ppm	ASTM D5185m		0	<1	1
Magnesium	ppm	ASTM D5185m		56	78	57
Calcium	ppm	ASTM D5185m		2330	2560	2608
Phosphorus	ppm	ASTM D5185m		802	933	993
Zinc	ppm	ASTM D5185m		1107	1162	1207
Sulfur	ppm	ASTM D5185m		3459	4620	4829
Oxidation	Abs/.1mm	*ASTM D7414	>25	11.3	10.7	16.3
Base Number (BN)	mg KOH/g	ASTM D2896		6.5	6.3	5.9
Visc @ 100°C	cSt	ASTM D445		13.5	13.9	13.4



Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : DC0031964 **Received** : 26 Jun 2024
Lab Number : 06221049 **Tested** : 27 Jun 2024
Unique Number : 11099246 **Diagnosed** : 27 Jun 2024 - Wes Davis
Test Package : MOB 1 (Additional Tests: TBN)

THOMAS BENNETT & HUNTER INC
 70 JOHN ST
 WESTMINSTER, MD
 US 21157
 Contact: JOE STEPHAN
 jstephan@tbhconcrete.com
 T: (410)848-9030
 F: (410)848-9032

Certificate L2367
 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)