MOB I

VOLVO PENTA

OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	NORMAL

Area
LAURA FOLTZ [COLIN 6643]
Machine Id
VOLVO PENTA D4-320I-G A1092760
Component
Diesel Engine
Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- QTS)

RECOMMENDATION

Resample at the next service interval to monitor.

WEAR

All component wear rates are normal.

CONTAMINATION

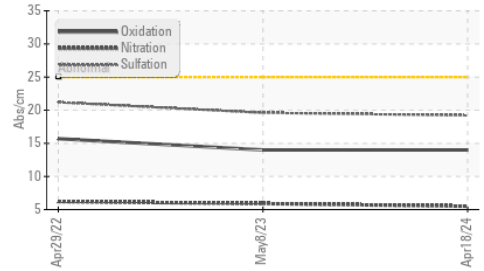
There is no indication of any contamination in the oil.

FLUID CONDITION

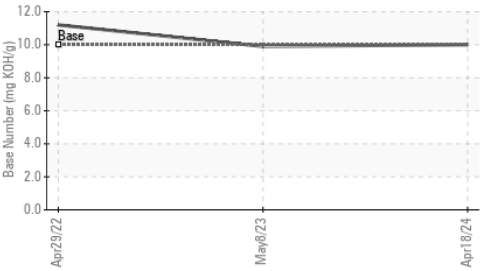
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VPA060747	VPA048514	VPA043993
Sample Date		Client Info		18 Apr 2024	08 May 2023	29 Apr 2022
Machine Age	hrs	Client Info		343	282	179
Oil Age	hrs	Client Info		0	0	179
Filter Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Not Changd	Changed
Filter Changed		Client Info		Changed	N/A	Changed
Sample Status				NORMAL	NORMAL	NORMAL
Iron	ppm	ASTM D5185m	>80	20	18	17
Chromium	ppm	ASTM D5185m	>6	<1	<1	1
Nickel	ppm	ASTM D5185m	>2	1	1	0
Titanium	ppm	ASTM D5185m	>2	0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	3	5	6
Lead	ppm	ASTM D5185m	>95	2	3	3
Copper	ppm	ASTM D5185m	>85	6	8	9
Tin	ppm	ASTM D5185m	>9	1	0	<1
Vanadium	ppm	ASTM D5185m		0	0	0
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Silicon	ppm	ASTM D5185m	>25	6	6	10
Potassium	ppm	ASTM D5185m	>20	0	3	2
Fuel		WC Method	>4.0	<1.0	<1.0	<1.0
Water		WC Method	>0.1	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	*ASTM D7844		0.5	0.5	0.5
Nitration	Abs/cm	*ASTM D7624	>20	5.5	5.9	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	19.2	19.6	21.2
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	>0.1	NEG	NEG	NEG
Sodium	ppm	ASTM D5185m		2	<1	<1
Boron	ppm	ASTM D5185m	2.5	18	<1	9
Barium	ppm	ASTM D5185m	0.0	0	0	0
Molybdenum	ppm	ASTM D5185m	0.7	60	67	58
Manganese	ppm	ASTM D5185m	0.0	<1	0	<1
Magnesium	ppm	ASTM D5185m	256	909	1149	857
Calcium	ppm	ASTM D5185m	2057	1129	1217	1163
Phosphorus	ppm	ASTM D5185m	935	1061	1198	1042
Zinc	ppm	ASTM D5185m	1223	1169	1493	1218
Sulfur	ppm	ASTM D5185m	4079	4411	4250	2545
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.0	14.0	15.7
Base Number (BN)	mg KOH/g	ASTM D2896	10	10.0	9.9	11.2
Visc @ 100°C	cSt	ASTM D445	15.0	13.3	13.1	13.4

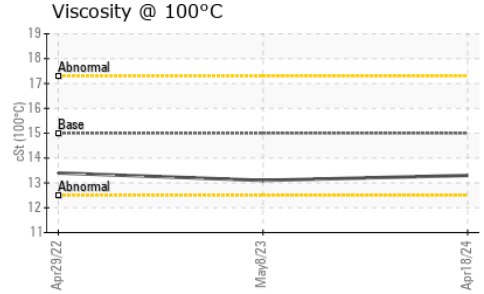
FT-IR (Direct Trend)



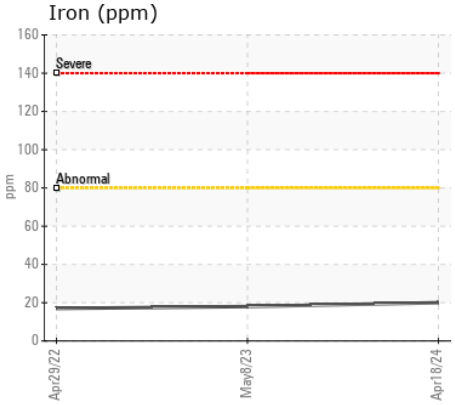
Base Number



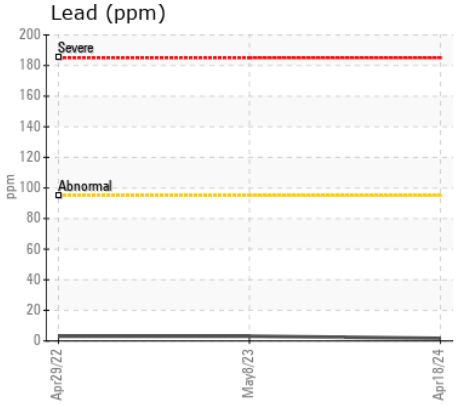
Viscosity @ 100°C



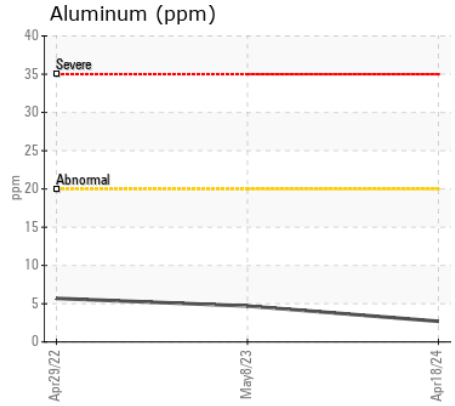
Iron (ppm)



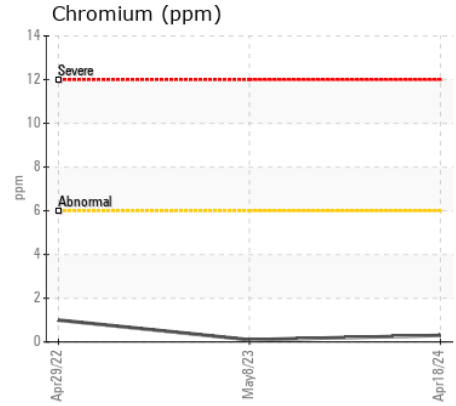
Lead (ppm)



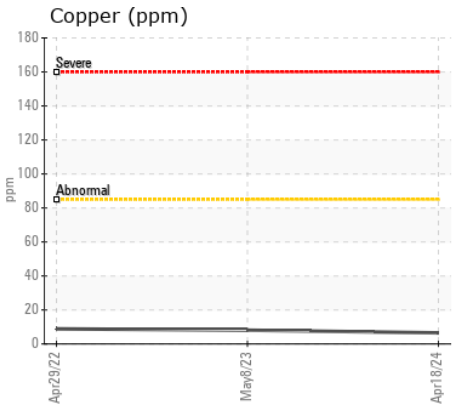
Aluminum (ppm)



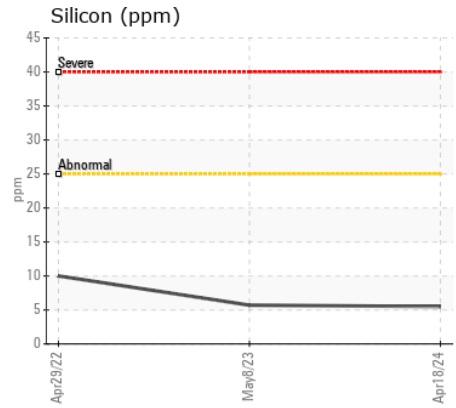
Chromium (ppm)



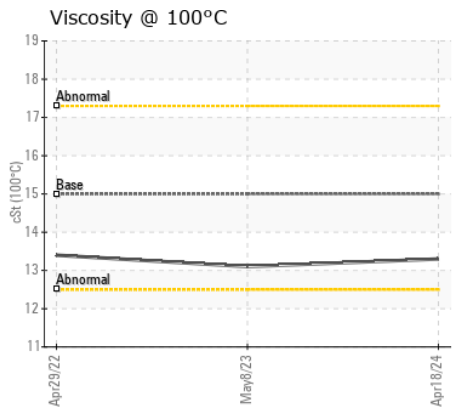
Copper (ppm)



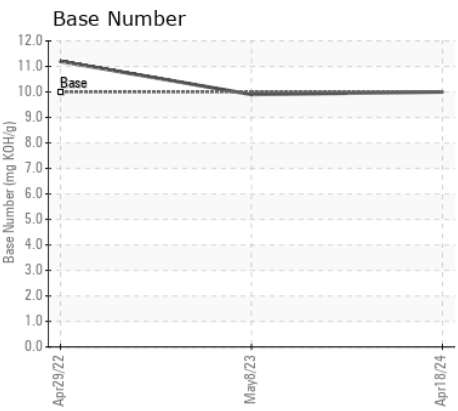
Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VPA060747
Lab Number : 06157326
Unique Number : 10992749
Test Package : MOB 1 (Additional Tests: TBN)

Received : 23 Apr 2024
Tested : 24 Apr 2024
Diagnosed : 25 Apr 2024 - Jonathan Hester

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)

Northwest Diesel Power
1325 ROEDER AVE SUITE 103
BELLINGHAM, WA
US 98225
Contact: TRAVIS THOMAS
ttdiesel@yahoo.com
T: (360)739-9525
F: