



OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	ABNORMAL
FLUID CONDITION	NORMAL

Area
[60873]
 Machine Id
DOOSAN P185 497071UKADG89
 Component
Diesel Engine
 Fluid
VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

RECOMMENDATION

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. Resample at the next service interval to monitor.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		VCP420617	VCP368139	---
Sample Date		Client Info		08 Jan 2024	17 Nov 2022	---
Machine Age	hrs	Client Info		1622	1294	---
Oil Age	hrs	Client Info		0	0	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Not Changed	---
Filter Changed		Client Info		Changed	N/A	---
Sample Status				ABNORMAL	NORMAL	---

WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185m	>50	23	14	---
Chromium	ppm	ASTM D5185m	>20	0	<1	---
Nickel	ppm	ASTM D5185m	>5	0	<1	---
Titanium	ppm	ASTM D5185m		0	0	---
Silver	ppm	ASTM D5185m	>3	0	<1	---
Aluminum	ppm	ASTM D5185m	>20	3	1	---
Lead	ppm	ASTM D5185m	>40	<1	<1	---
Copper	ppm	ASTM D5185m	>30	2	<1	---
Tin	ppm	ASTM D5185m	>15	0	<1	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

CONTAMINATION

Elemental level of silicon (Si) above normal.

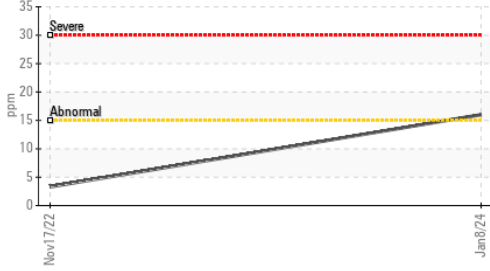
Silicon	ppm	ASTM D5185m	>15	▲ 16	3	---
Potassium	ppm	ASTM D5185m	>20	1	2	---
Fuel		WC Method	>3.0	<1.0	<1.0	---
Water		WC Method	>0.1	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.6	1.2	---
Nitration	Abs/cm	*ASTM D7624	>20	8.9	6.6	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	18.8	20.8	---
Silt	scalar	*Visual	NONE	NONE	NONE	---
Debris	scalar	*Visual	NONE	NONE	NONE	---
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	---
Appearance	scalar	*Visual	NORML	NORML	NORML	---
Odor	scalar	*Visual	NORML	NORML	NORML	---
Emulsified Water	scalar	*Visual	>0.1	NEG	NEG	---

FLUID CONDITION

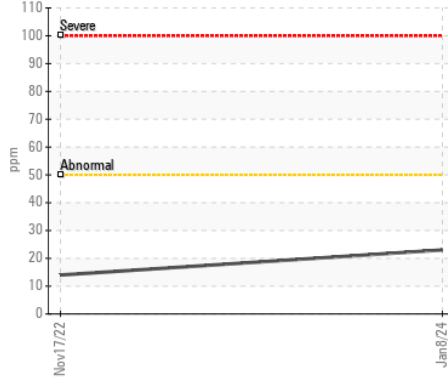
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

Sodium	ppm	ASTM D5185m		2	1	---
Boron	ppm	ASTM D5185m	2.5	13	6	---
Barium	ppm	ASTM D5185m	0.0	0	0	---
Molybdenum	ppm	ASTM D5185m	0.7	62	61	---
Manganese	ppm	ASTM D5185m	0.0	0	<1	---
Magnesium	ppm	ASTM D5185m	256	985	933	---
Calcium	ppm	ASTM D5185m	2057	1086	1068	---
Phosphorus	ppm	ASTM D5185m	935	1013	997	---
Zinc	ppm	ASTM D5185m	1223	1352	1288	---
Sulfur	ppm	ASTM D5185m	4079	3042	3552	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	14.8	14.1	---
Base Number (BN)	mg KOH/g	ASTM D2896	10	9.5	11.5	---
Visc @ 100°C	cSt	ASTM D445	15.0	13.3	13.8	---

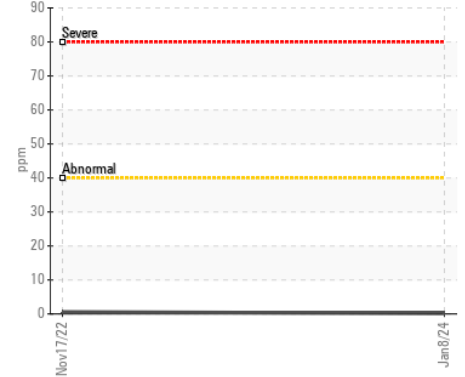
▲ Silicon (ppm)



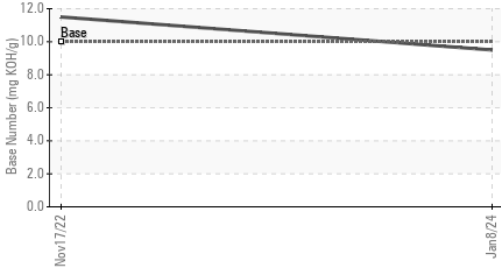
Iron (ppm)



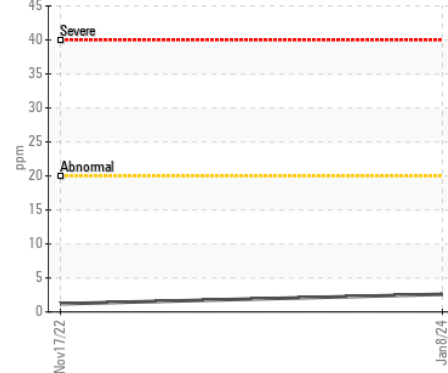
Lead (ppm)



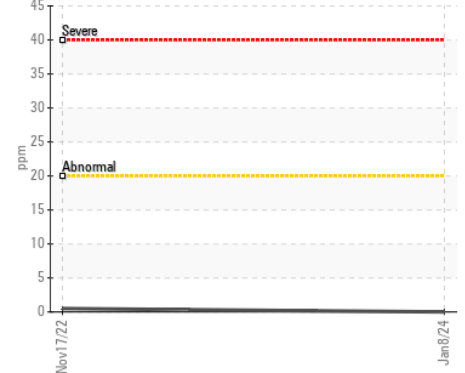
Base Number



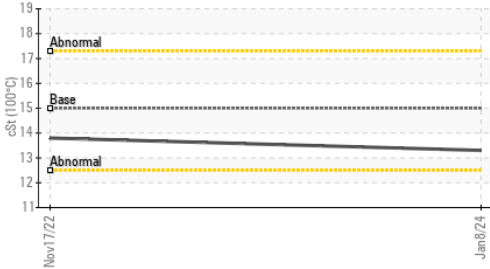
Aluminum (ppm)



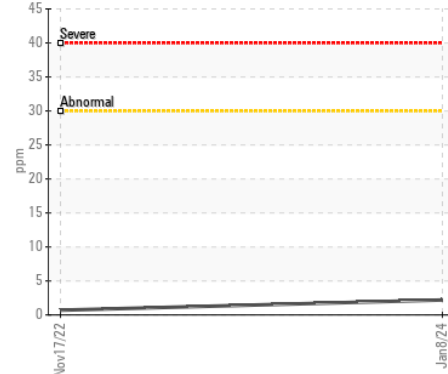
Chromium (ppm)



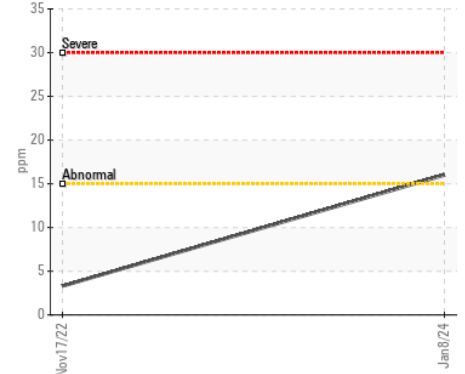
Viscosity @ 100°C



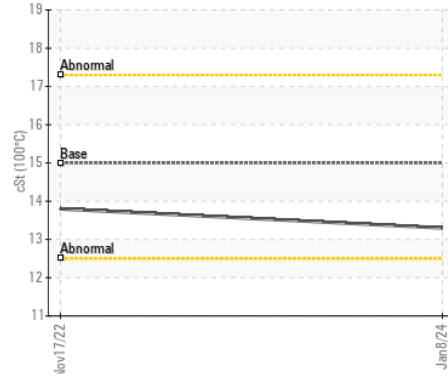
Copper (ppm)



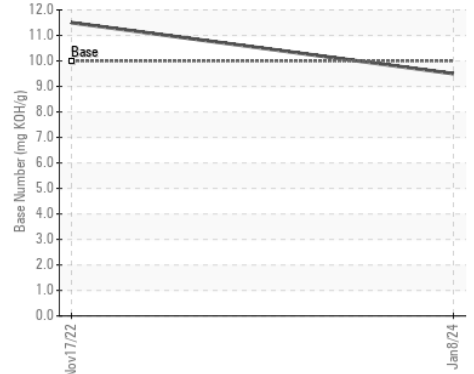
▲ Silicon (ppm)



Viscosity @ 100°C



Base Number



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513
Sample No. : VCP420617 **Received** : 11 Jan 2024
Lab Number : 06057745 **Diagnosed** : 12 Jan 2024
Unique Number : 10823694 **Diagnostician** : Don Baldrige
Test Package : MOB 1 (Additional Tests: TBN)

114 - ASCENDUM MACHINERY INC - CONCORD
 1025 INTERNATIONAL DR NW
 CONCORD, NC
 US 28027
 Contact: CEB SMITH
 ceb.smith@ascendummachinery.com
 T: (704)596-8283
 F: (704)596-1362

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)