



# ASCENDUM

## OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	NORMAL
FLUID CONDITION	ATTENTION

Area

### Ascendum Machinery/250 Hour CSA

Machine Id

**KLEEMANN KT 80-2 2246 (S/N Z008.0640/173151-FSC-T-80-2020)**

Component

**Diesel Engine**

Fluid

**VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- 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		ASC0009745	ASC0005117	---
Sample Date		Client Info		18 Jun 2024	05 Dec 2023	---
Machine Age	hrs	Client Info		958	958	---
Oil Age	hrs	Client Info		958	958	---
Filter Age	hrs	Client Info		0	0	---
Oil Changed		Client Info		Changed	Changed	---
Filter Changed		Client Info		Changed	Changed	---
Sample Status				ATTENTION	NORMAL	---

### WEAR

Metal levels are typical for a new component breaking in.

Iron	ppm	ASTM D5185m	>100	18	66	---
Chromium	ppm	ASTM D5185m	>20	<1	2	---
Nickel	ppm	ASTM D5185m	>4	<1	0	---
Titanium	ppm	ASTM D5185m		<1	0	---
Silver	ppm	ASTM D5185m	>3	0	3	---
Aluminum	ppm	ASTM D5185m	>20	4	8	---
Lead	ppm	ASTM D5185m	>40	<1	0	---
Copper	ppm	ASTM D5185m	>330	2	6	---
Tin	ppm	ASTM D5185m	>15	0	0	---
Vanadium	ppm	ASTM D5185m		0	0	---
White Metal	scalar	*Visual	NONE	NONE	NONE	---
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	---

### CONTAMINATION

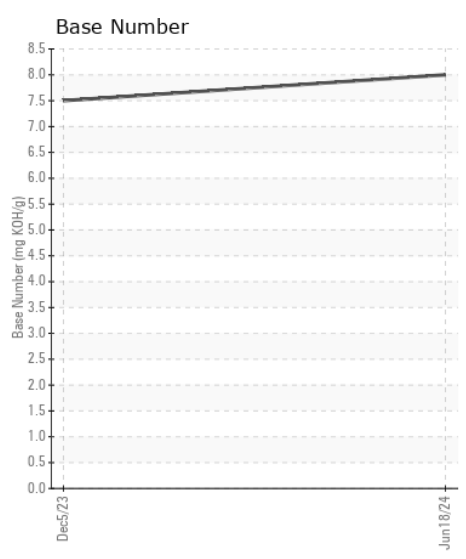
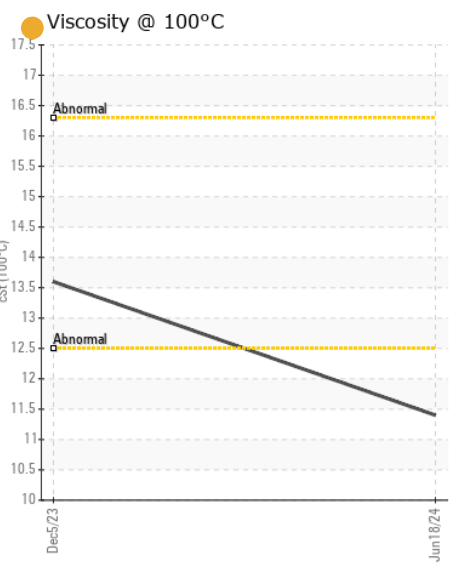
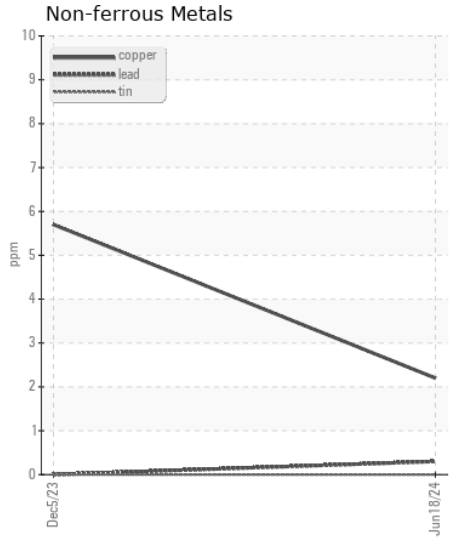
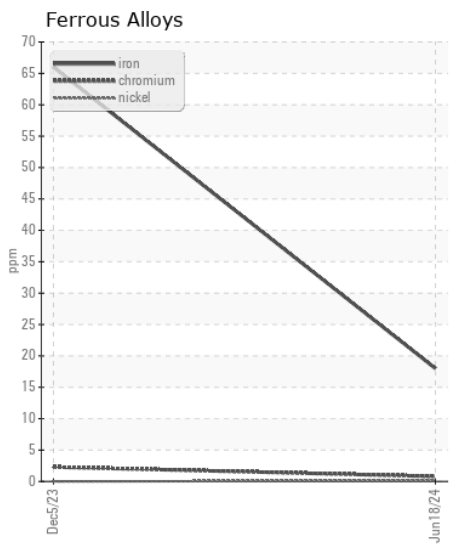
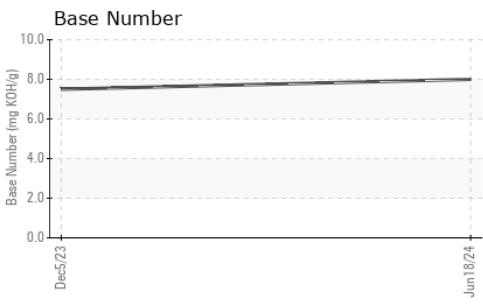
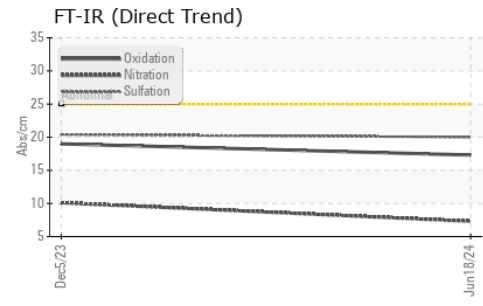
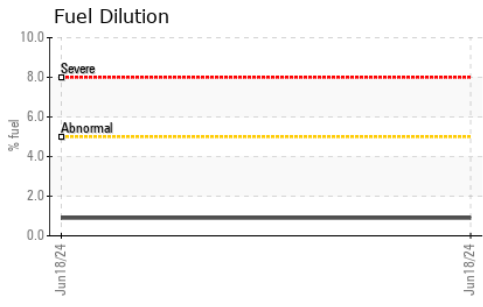
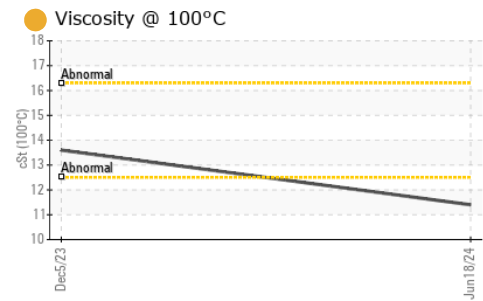
Fuel content negligible. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185m	>25	16	15	---
Potassium	ppm	ASTM D5185m	>20	4	0	---
Fuel	%	ASTM D3524	>5	0.9	<1.0	---
Water		WC Method	>0.2	NEG	NEG	---
Glycol		WC Method		NEG	NEG	---
Soot %	%	*ASTM D7844	>3	0.3	0.5	---
Nitration	Abs/cm	*ASTM D7624	>20	7.3	10.1	---
Sulfation	Abs/.1mm	*ASTM D7415	>30	20.0	20.4	---
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	>0.2	NEG	NEG	---

### FLUID CONDITION

The oil viscosity is lower than normal. The BN result indicates that there is suitable alkalinity remaining in the oil. Confirm oil type.

Sodium	ppm	ASTM D5185m		1	5	---
Boron	ppm	ASTM D5185m		31	1	---
Barium	ppm	ASTM D5185m		0	0	---
Molybdenum	ppm	ASTM D5185m		34	63	---
Manganese	ppm	ASTM D5185m		0	<1	---
Magnesium	ppm	ASTM D5185m		449	971	---
Calcium	ppm	ASTM D5185m		1319	1188	---
Phosphorus	ppm	ASTM D5185m		832	1057	---
Zinc	ppm	ASTM D5185m		1058	1303	---
Sulfur	ppm	ASTM D5185m		2512	2462	---
Oxidation	Abs/.1mm	*ASTM D7414	>25	17.3	19.0	---
Base Number (BN)	mg KOH/g	ASTM D2896		8.0	7.5	---
Visc @ 100°C	cSt	ASTM D445		11.4	13.6	---



Certificate L2367

**Laboratory** : WearCheck USA - 501 Madison Ave., Cary, NC 27513  
**Sample No.** : ASC0009745 **Received** : 21 Jun 2024  
**Lab Number** : 06216551 **Tested** : 25 Jun 2024  
**Unique Number** : 11089415 **Diagnosed** : 25 Jun 2024 - Sean Felton  
**Test Package** : CONST ( Additional Tests: FuelDilution, PercentFuel, TBN )

**TRIANGLE GRADING AND PAVING INC**  
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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)