



[SWA584249-10] VOLVO EC300E 314225 **Diesel Engine**

VOLVO VDS-4.5 Premium Motor Oil 15W40 (--- GAL)

RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
Resample at the next service interval to monitor.	Sample Number		Client Info		VCP429951	VCP407432	VCP407416
	Sample Date		Client Info		14 Jun 2024	07 Sep 2023	19 Jun 2023
	Machine Age	hrs	Client Info		6470	4869	4288
	Oil Age	hrs	Client Info		500	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.	Iron	ppm	ASTM D5185m	>100	6	6	6
	Chromium	ppm	ASTM D5185m	>10	<1	<1	<1
	Nickel	ppm	ASTM D5185m		0	0	0
	Titanium	ppm	ASTM D5185m		0	<1	0
	Silver	ppm	ASTM D5185m	>2	0	0	0
	Aluminum	ppm	ASTM D5185m		2	4	1
	Lead	ppm	ASTM D5185m		0	<1	<1
	Copper	ppm	ASTM D5185m		2	3	2
	Tin	ppm	ASTM D5185m		0	<1	<1
	Vanadium	ppm	ASTM D5185m		<1	<1	0
	White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
						_	
CONTAMINATION	Silicon	ppm	ASTM D5185m	-	6	7	6
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		1	7	1
	Fuel		WC Method		<1.0	<1.0	<1.0
	Water		WC Method	>0.1	NEG	NEG	NEG
	Glycol		WC Method		NEG	NEG	NEG
	Soot %	%	*ASTM D7844		0.1	0.1	0.1
	Nitration	Abs/cm	*ASTM D7624	>20	7.0	6.9	7.5
	Sulfation	Abs/.1mm	*ASTM D7415		22.3	22.1	22.2
	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
FLUID CONDITION	Sodium	ppm	ASTM D5185m		2	3	2
	Boron	ppm	ASTM D5185m		40	38	48
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.	Barium	ppm	ASTM D5185m		0	0	0
	Molybdenum	ppm	ASTM D5185m		42	43	42
	Manganese	ppm	ASTM D5185m		<1	<1	<1
	Magnesium	ppm	ASTM D5185m		542	566	561
	Calcium	ppm	ASTM D5185m		1886	1967	1856
	Phosphorus	ppm	ASTM D5185m		1035	1005	968
	Zinc	ppm	ASTM D5185m		1231	1247	1230
	Sulfur	ppm	ASTM D5185m		3476	3748	3569
	Oxidation	Abs/.1mm	*ASTM D7414	>25	20.6	20.6	21.4
	Base Number (BN)	mg KOH/g	ASTM D2896		10.4	10.2	10.3
	Vies @ 10000	- C+			10.0	10.7	10.0

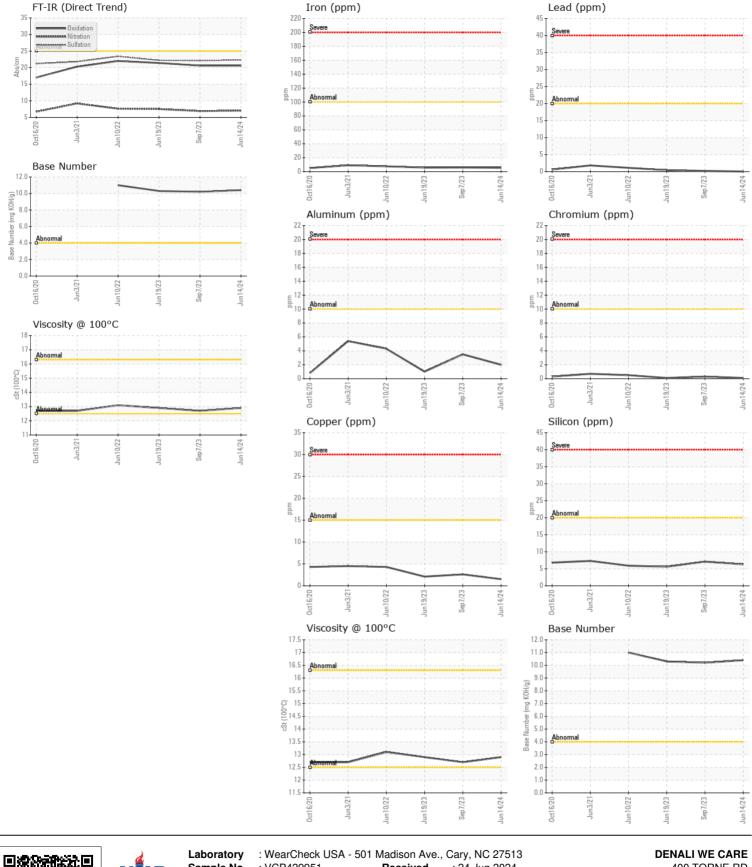
12.7

12.9

12.9

ASTM D445

Visc @ 100°C cSt



DENALI WE CARE Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 Sample No. : VCP429951 Received 400 TORNE RD : 24 Jun 2024 Lab Number : 06217751 Tested HILLBURN, NY : 25 Jun 2024 Unique Number : 11090615 Diagnosed : 25 Jun 2024 - Wes Davis US 10931 Test Package : MOB 1 (Additional Tests: TBN) Contact: Service Manager 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. T: Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F:

Report Id: DENHIL [WUSCAR] 06217751 (Generated: 06/25/2024 04:46:57) Rev: 1

Contact/Location: Service Manager - DENHIL Page 2 of 2