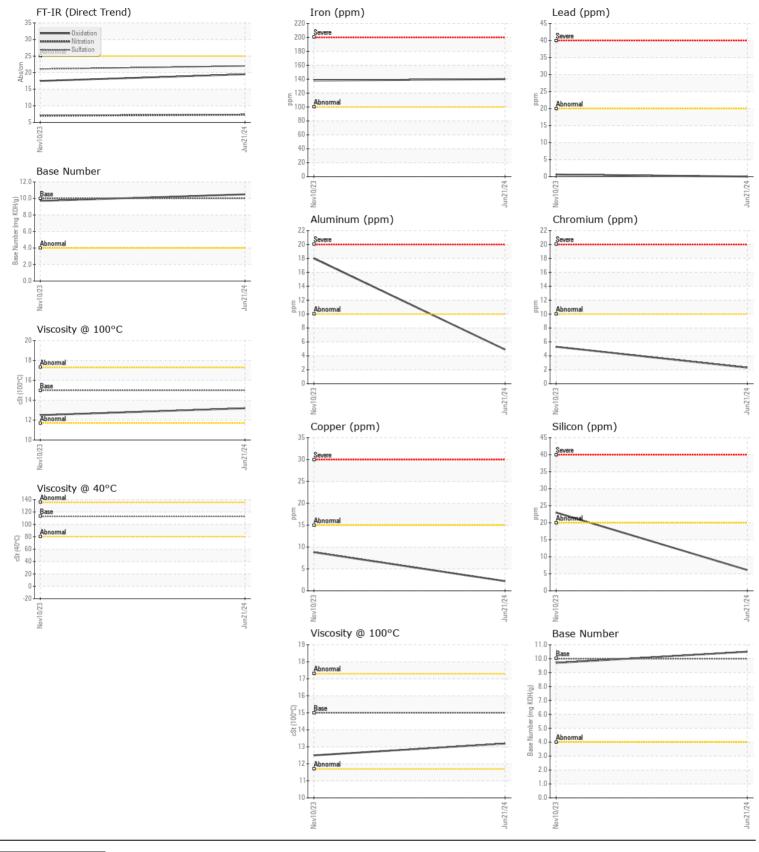


## [730443 TITAL AMERICA] **VOLVO L60H 622689 Diesel Engine**

## VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3 (--- GAL)

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RECOMMENDATION	Test	UOM	Method	Limit/Abn	Current	History1	History2
	Sample Number		Client Info		VCP450879	VCP436041	
Resample at the next service interval to monitor.	Sample Date		Client Info		21 Jun 2024	10 Nov 2023	
	Machine Age	hrs	Client Info		1697	564	
	Oil Age	hrs	Client Info		0	0	
	Filter Age	hrs	Client Info		0	0	
	Oil Changed		Client Info		Changed	Changed	
	Filter Changed		Client Info		N/A	Changed	
	Sample Status				NORMAL	NORMAL	
WEAR All component wear rates are normal.	Iron	ppm	ASTM D5185m	>100	140	138	
	Chromium	ppm	ASTM D5185m	>10	2	5	
	Nickel	ppm	ASTM D5185m	>10	0	<1	
	Titanium	ppm	ASTM D5185m		0	<1	
	Silver	ppm	ASTM D5185m	>2	0	0	
	Aluminum	ppm	ASTM D5185m	>10	5	18	
	Lead	ppm	ASTM D5185m		0	<1	
	Copper	ppm	ASTM D5185m	>15	2	9	
	Tin	ppm	ASTM D5185m	>10	0	2	
	Vanadium	ppm	ASTM D5185m		<1	0	
	White Metal	scalar	*Visual	NONE	NONE	NONE	
	Yellow Metal	scalar	*Visual	NONE	NONE	NONE	
CONTAMINATION	Silicon	ppm	ASTM D5185m		6	23	
There is no indication of any contamination in the oil.	Potassium	ppm	ASTM D5185m		0	3	
	Fuel		WC Method		<1.0	<1.0	
	Water		WC Method	>0.1	NEG	NEG	
	Glycol		WC Method		NEG	NEG	
	Soot %	%	*ASTM D7844		0.4	0.4	
	Nitration	Abs/cm	*ASTM D7624	>20	7.3	7.0	
	Sulfation	Abs/.1mm	*ASTM D7415		22.0	21.1	
	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	Codium				3	2	
FLUID CONDITION	Sodium Boron	ppm	ASTM D5185m	2.5			
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.		ppm	ASTM D5185m		25	43	
	Barium	ppm	ASTM D5185m		<1 20	<1	
	Molybdenum	ppm	ASTM D5185m		39	40	
	Manganese	ppm	ASTM D5185m		2	6	
	Magnesium	ppm	ASTM D5185m		524	584	
	Calcium	ppm	ASTM D5185m		1708	1533	
	Phosphorus	ppm	ASTM D5185m		923	909	
	Zinc	ppm	ASTM D5185m		1105	1085	
	Sulfur	ppm	ASTM D5185m		3109	3639	
	Oxidation	Abs/.1mm	*ASTM D7414		19.5	17.5	
	Base Number (BN)	mg KOH/g	ASTM D2896		10.5	9.7	
	Visc @ 100°C	cSt	ASTM D445	15.0	13.19	12.5	



ALTA EQUIPMENT COMPANY Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513 回済 Sample No. : VCP450879 Received 5210 REESE ROAD : 26 Jun 2024 餌 Lab Number : 06221609 Tested : 01 Jul 2024 DAVIE, FL Unique Number : 11099806 Diagnosed : 01 Jul 2024 - Jonathan Hester US 33314 Test Package : MOB 1 (Additional Tests: KV40, TBN, VI) Contact: N. FACEY Certificate L2367 To discuss this sample report, contact Customer Service at 1-800-237-1369. nfacey@altaequipfl.com \* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. T: (954)581-4744 Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012) F: (954)583-0318