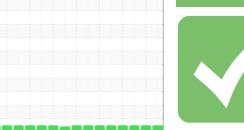


OIL ANALYSIS REPORT

Sample Rating Trend







AMR-Cheyenne Machine Id VOLVO L90E 67837

Component Front Axle

VOLVO WB 102 (9 GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Moor

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil

Fluid Condition

The condition of the oil is acceptable for the time in service.

Anz 2012 Jan 2014 Jan 2015 Sep 2016 Jul 2017 Feb 2020 May 2021 Sep 2022							
SAMPLE INFORM	MATION	method	limit/base	current	history1	history2	
Sample Number		Client Info		DJJ0010723	DJJ0010730	DJJ0010735	
Sample Date		Client Info		26 Oct 2023	15 Sep 2022	27 Apr 2022	
Machine Age	hrs	Client Info		13259	12255	11987	
Oil Age	hrs	Client Info		1000	1000	0	
Oil Changed		Client Info		Changed	Changed	Not Changd	
Sample Status				NORMAL	NORMAL	NORMAL	
CONTAMINATION	١	method	limit/base	current	history1	history2	
Water		WC Method	>0.2	NEG	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>500	15	16	12	
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1	
Nickel	ppm	ASTM D5185m	>10	0	0	0	
Titanium	ppm	ASTM D5185m		0	<1	<1	
Silver	ppm	ASTM D5185m		0	0	<1	
Aluminum	ppm	ASTM D5185m	>30	1	1	2	
Lead	ppm	ASTM D5185m	>50	0	0	<1	
Copper	ppm	ASTM D5185m	>120	0	<1	0	
Tin	ppm	ASTM D5185m	>20	0	0	<1	
Antimony	ppm	ASTM D5185m	>5				
Vanadium	ppm	ASTM D5185m		0	0	0	
Cadmium	ppm	ASTM D5185m		0	0	0	
ADDITIVES		method	limit/base	current	history1	history2	
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1	history2	
	ppm		limit/base				
Boron		ASTM D5185m	limit/base	143	126	161	
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m	limit/base	143 0	126	161 0	
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	143 0 0	126 0 <1	161 0 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	143 0 0 -<1	126 0 <1 <1	161 0 <1 <1	
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	143 0 0 <1 20	126 0 <1 <1 14	161 0 <1 <1 17	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	143 0 0 0 <1 20 3977	126 0 <1 <1 14 4128	161 0 <1 <1 17 4443	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	143 0 0 <1 20 3977 1330	126 0 <1 <1 14 4128 1231	161 0 <1 <1 17 4443 1367	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	143 0 0 <1 20 3977 1330 1600	126 0 <1 <1 14 4128 1231 1582	161 0 <1 <1 17 4443 1367 1551	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m		143 0 0 <1 20 3977 1330 1600 3968	126 0 <1 <1 14 4128 1231 1582 4468	161 0 <1 <1 17 4443 1367 1551 3557	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	143 0 0 <1 20 3977 1330 1600 3968	126 0 <1 <1 14 4128 1231 1582 4468 history1	161 0 <1 <1 17 4443 1367 1551 3557	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base	143 0 0 <1 20 3977 1330 1600 3968 current	126 0 <1 <1 14 4128 1231 1582 4468 history1	161 0 <1 <1 17 4443 1367 1551 3557 history2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >50	143 0 0 <1 20 3977 1330 1600 3968 current 15 4	126 0 <1 <1 14 4128 1231 1582 4468 history1 14 6	161 0 <1 <1 17 4443 1367 1551 3557 history2 15 8	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >50 >20	143 0 0 <1 20 3977 1330 1600 3968 current 15 4	126 0 <1 <1 14 4128 1231 1582 4468 history1 14 6 2	161 0 <1 <1 17 4443 1367 1551 3557 history2 15 8 0	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >50 >20 limit/base	143 0 0 0 <1 20 3977 1330 1600 3968 current 15 4 0 current	126 0 <1 <1 14 4128 1231 1582 4468 history1 14 6 2 history1	161 0 <1 <1 17 4443 1367 1551 3557 history2 15 8 0	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >50 >20 limit/base NONE	143 0 0 0 <1 20 3977 1330 1600 3968 current 15 4 0 current NONE	126 0 <1 <1 14 4128 1231 1582 4468 history1 14 6 2 history1 NONE	161 0 <1 <1 17 4443 1367 1551 3557 history2 15 8 0 history2	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m method *Visual *Visual	limit/base >50 >20 limit/base NONE NONE	143 0 0 0 <1 20 3977 1330 1600 3968 current 15 4 0 current NONE NONE	126 0 <1 <1 14 4128 1231 1582 4468 history1 14 6 2 history1 NONE NONE	161 0 <1 <1 17 4443 1367 1551 3557 history2 15 8 0 history2 NONE NONE	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m MEthod *Visual *Visual	limit/base >50 >20 limit/base NONE NONE NONE	143 0 0 0 <1 20 3977 1330 1600 3968 current 15 4 0 current NONE NONE	126 0 <1 <1 14 4128 1231 1582 4468 history1 14 6 2 history1 NONE NONE	161 0 <1 <1 17 4443 1367 1551 3557 history2 15 8 0 history2 NONE NONE	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m MEthod *Visual *Visual *Visual	limit/base >50 >20 limit/base NONE NONE NONE	143 0 0 0 <1 20 3977 1330 1600 3968 current 15 4 0 current NONE NONE NONE	126 0 <1 <1 <1 14 4128 1231 1582 4468 history1 14 6 2 history1 NONE NONE NONE NONE	161 0 <1 <1 17 4443 1367 1551 3557 history2 15 8 0 history2 NONE NONE NONE NONE	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium VISUAL White Metal Yellow Metal Precipitate Silt Debris	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m METHOD ASTM D5185m METHOD *Visual *Visual *Visual *Visual *Visual *Visual	limit/base >50 >20 limit/base NONE NONE NONE NONE NONE NONE	143 0 0 0 1 20 3977 1330 1600 3968 current 15 4 0 current NONE NONE NONE NONE NONE NONE NONE NON	126 0 <1 <1 14 4128 1231 1582 4468 history1 14 6 2 history1 NONE NONE NONE NONE NONE NONE NONE	161 0 <1 17 4443 1367 1551 3557 history2 15 8 0 history2 NONE NONE NONE NONE NONE NONE	

Emulsified Water

scalar *Visual

scalar *Visual

>0.2

NEG

NEG

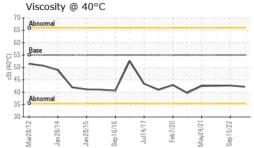
NEG

NEG

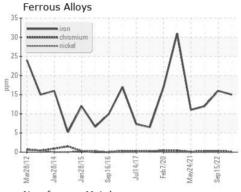
BRIMEGIACOBS - ANDECKANKS

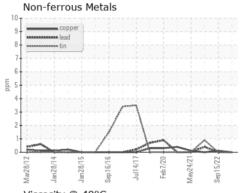


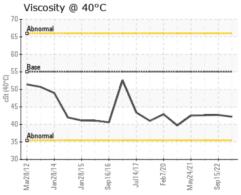
OIL ANALYSIS REPORT



FLUID PROPERTIES		method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	55	42.2	42.7	42.6
SAMPLE IMAGES		method	limit/base	current	history1	history2
Color				no image	no image	no image
Bottom				no image	no image	no image









Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10750894 Test Package : CONST

: DJJ0010723 : 06011750

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Received : 17 Nov 2023 Diagnosed : 21 Nov 2023 Diagnostician : Don Baldridge

ADVANTAGE METALS RECYCLING - CHEYENNE 1015 S. PACKARD ST

KANSAS CITY, KS US 66105

Contact: BRIAN JACOBS

BRIAN.JACOBS@ADVANTAGERECYCLING.COM T: (816)808-4711

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)

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