

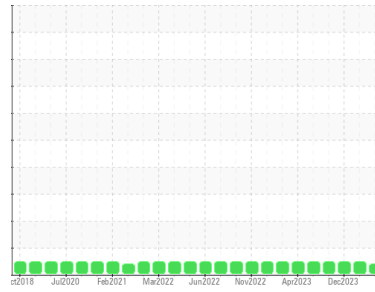


# OIL ANALYSIS REPORT



Area  
**AMR-Walnut St**  
 Machine Id  
**438154 VOLVO L180H 04797**  
 Component  
**Diesel Engine**  
 Fluid  
**CHEVRON 15W40 (12 GAL)**

## Sample Rating Trend



## VISCOSITY



### DIAGNOSIS

#### ● Recommendation

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor.

#### Wear

All component wear rates are normal.

#### Contamination

Fuel content negligible. There is no indication of any contamination in the oil.

#### ● 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.

### SAMPLE INFORMATION

	method	limit/base	current	history1	history2
Sample Number	Client Info		<b>DJJ0021075</b>	DJJ0021073	DJJ0021069
Sample Date	Client Info		<b>28 May 2024</b>	20 Feb 2024	14 Dec 2023
Machine Age	hrs	Client Info	<b>13086</b>	12524	12141
Oil Age	hrs	Client Info	<b>0</b>	0	250
Oil Changed	Client Info		<b>Changed</b>	Changed	Changed
Sample Status			<b>ATTENTION</b>	NORMAL	NORMAL

### CONTAMINATION

	method	limit/base	current	history1	history2
Water	WC Method	>0.2	<b>NEG</b>	NEG	NEG
Glycol	WC Method		<b>NEG</b>	NEG	NEG

### WEAR METALS

	method	limit/base	current	history1	history2	
Iron	ppm	ASTM D5185m	>200	<b>3</b>	1	2
Chromium	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	<1
Nickel	ppm	ASTM D5185m	>5	<b>0</b>	0	0
Titanium	ppm	ASTM D5185m		<b>&lt;1</b>	0	0
Silver	ppm	ASTM D5185m	>2	<b>0</b>	0	0
Aluminum	ppm	ASTM D5185m	>30	<b>2</b>	<1	2
Lead	ppm	ASTM D5185m	>40	<b>&lt;1</b>	0	0
Copper	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Tin	ppm	ASTM D5185m	>20	<b>&lt;1</b>	0	0
Vanadium	ppm	ASTM D5185m		<b>0</b>	0	0
Cadmium	ppm	ASTM D5185m		<b>0</b>	0	0

### ADDITIVES

	method	limit/base	current	history1	history2	
Boron	ppm	ASTM D5185m		<b>90</b>	89	372
Barium	ppm	ASTM D5185m		<b>0</b>	0	0
Molybdenum	ppm	ASTM D5185m		<b>44</b>	46	119
Manganese	ppm	ASTM D5185m		<b>0</b>	0	0
Magnesium	ppm	ASTM D5185m		<b>468</b>	505	586
Calcium	ppm	ASTM D5185m		<b>1469</b>	1517	1450
Phosphorus	ppm	ASTM D5185m		<b>886</b>	878	735
Zinc	ppm	ASTM D5185m		<b>1019</b>	1015	881
Sulfur	ppm	ASTM D5185m		<b>2967</b>	2543	2841

### CONTAMINANTS

	method	limit/base	current	history1	history2	
Silicon	ppm	ASTM D5185m	>20	<b>4</b>	3	5
Sodium	ppm	ASTM D5185m	>50	<b>0</b>	1	0
Potassium	ppm	ASTM D5185m	>20	<b>1</b>	<1	2
Fuel	%	ASTM D3524	>6.0	<b>0.3</b>	<1.0	<1.0

### INFRA-RED

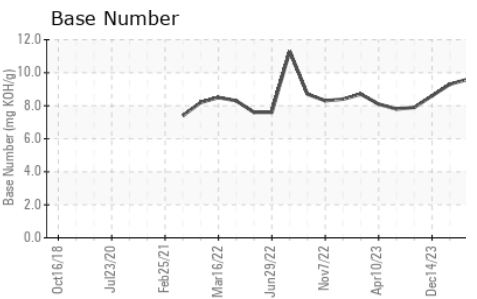
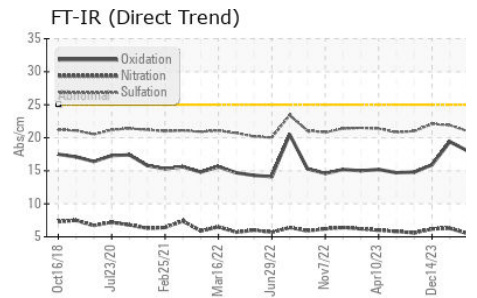
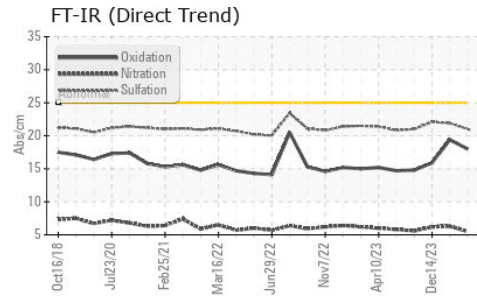
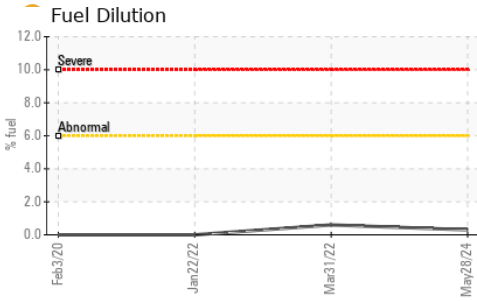
	method	limit/base	current	history1	history2	
Soot %	%	*ASTM D7844	>3	<b>0.1</b>	0.1	0.1
Nitration	Abs/cm	*ASTM D7624	>20	<b>5.5</b>	6.3	6.2
Sulfation	Abs/.1mm	*ASTM D7415	>30	<b>21.0</b>	21.9	22.1

### FLUID DEGRADATION

	method	limit/base	current	history1	history2	
Oxidation	Abs/.1mm	*ASTM D7414	>25	<b>18.0</b>	19.4	15.9
Base Number (BN)	mg KOH/g	ASTM D2896		<b>9.6</b>	9.3	8.6



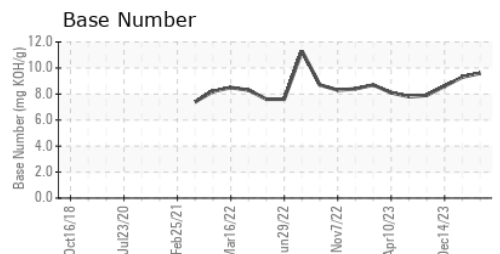
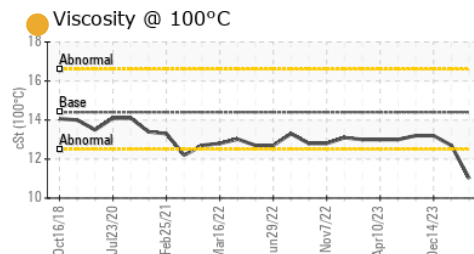
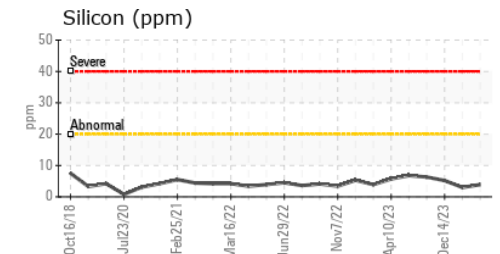
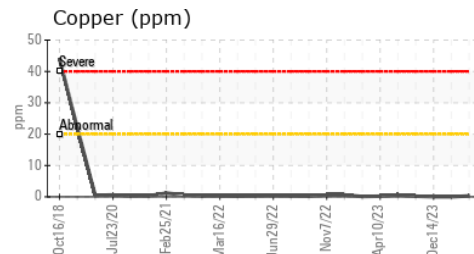
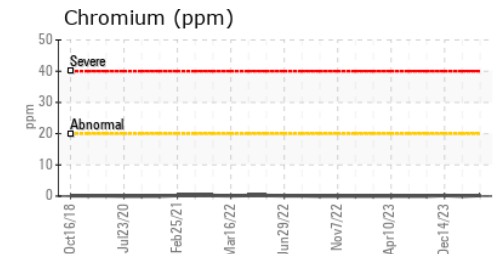
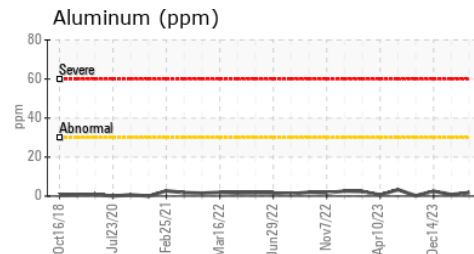
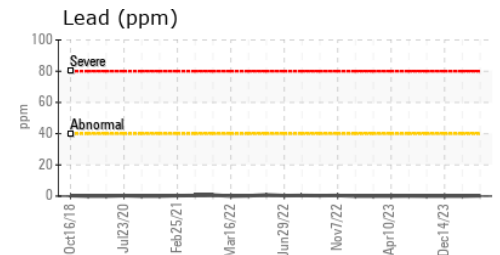
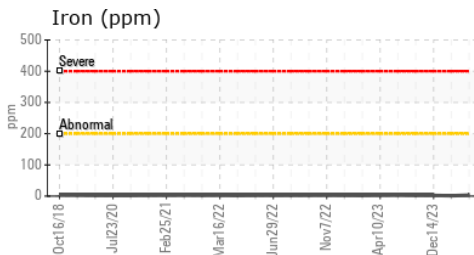
# OIL ANALYSIS REPORT



VISUAL	method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE
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
Free Water	scalar	*Visual		NEG	NEG

FLUID PROPERTIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	14.4	11.0	12.7

## GRAPHS



Certificate L2367

Laboratory : WearCheck USA - 501 Madison Ave., Cary, NC 27513

Sample No. : DJJ0021075

Lab Number : 06207623

Unique Number : 11075084

Test Package : MOBCE ( Additional Tests: FuelDilution, PercentFuel, TBN )

Received : 12 Jun 2024

Tested : 19 Jun 2024

Diagnosed : 19 Jun 2024 - Jonathan Hester

ADVANTAGE METALS RECYCLING - MANCHESTER

3005 MANCHESTER TRAFFICWAY

KANSAS CITY, MO

US 64129

Contact: STEVE BROWN

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T: (816)922-5100

F: (816)861-7670

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)