

## **CONSTRUCTION EQUIPMENT** VOLVO L150H 7135 - DIESEL ENGINE 880182M92



**Sample No:** VCP420664

Oil Type: **DIESEL ENGINE OIL SAE 15W40** 

Job No: SPM581088

VOLVO				
SAMPLE INFORMATION				
Sample Number	VCP420664	VCP422997	VCP420066	VCP387159
Sample Date	25 Aug 2023	25 Aug 2023	24 Apr 2023	22 Feb 2023
Machine Hours	995	4044	562	276
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Not Changd
Sample Status	ABNORMAL	NORMAL	ABNORMAL	ATTENTION

OIL CONDITION					
Visc @ 100°C	cSt	<b>13.3</b>	□13.6	<b>▲</b> 11.2	<b>▲</b> 11.1
Base Number (BN)	mg KOH/g	<b>6.9</b>	9.8	■ 5.0	■10.0
Oxidation (PA)	%	61	56	61	53

CONTAMINATION					
Soot %	%	■ 0.2	□0.1	□ 0.1	□ 0.1
Nitration (PA)	%	68	53	73	48
Sulfation (PA)	%	57	51	52	50
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	■ 0.5
Silicon	ppm	<b>13</b>	<b>3</b>	■21	<b>2</b>
Sodium	ppm	<b>■3</b>	<b>2</b>	<b>2</b>	<b>0</b>
Potassium	ppm	<b>2</b>	<b>-</b> <1	<b>■</b> 3	<b>1</b>

WEAR METALS						
Iron	ppm	<b>7</b>	<b>3</b>	■8	7	
Copper	ppm	<b>105</b>	<b>2</b>	<u>^</u> 221	<b>2</b> 9	
Lead	ppm	<b>■</b> 0	<b>0</b>	<b>-</b> <1	< 1	
Tin	ppm	<b>2</b>	<b>-</b> <1	<b>2</b>	□ < 1	
Aluminum	ppm	<b>2</b>	<u> </u>	<b>2</b>	<b>2</b>	
Chromium	ppm	<b>-&lt;1</b>	<b>-</b> <1	□0	□0	
Molybdenum	ppm	<b>69</b>	<b>6</b> 3	<b>7</b> 6	<b>47</b>	
Nickel	ppm	■0	0	□0	□0	
Titanium	ppm	<b>0</b>	<b>0</b>	<b>0</b>	< 1	
Silver	ppm	<b>■</b> 0	0	□ 0	0	
Manganese	ppm	<b>1</b>	< 1	<b>□</b> 3	< 1	
Vanadium	ppm	0	0	0	0	

ADDITIVES						
Calcium	ppm	<b>1512</b>	■1107	■1968	<b>1348</b>	
Magnesium	ppm	<b>729</b>	<b>1047</b>	■40	<b>588</b>	
Zinc	ppm	<b>1350</b>	□1366	<b>1166</b>	<b>1</b> 065	
Phosphorus	ppm	<b>1059</b>	<b>1105</b>	■909	■935	
Barium	ppm	<b>□</b> 0	<b>0</b>	<b>0</b>	<b>0</b>	
Boron	ppm	<b>11</b>	<b>3</b>	<b>4</b> 5	■23	



#### **WASTE MANAGEMENT - GARY**

1508 SHERMAN ST GARY, IN US 46406

Contact: TARA RORK

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## Diagnosis

Oil and filter change at the time of sampling has been noted. Resample at the next service interval to monitor. The copper level is abnormal. In the absence of other significant wear metals, suspect copper due to sources other than wear (i.e. cooling core). All other component wear rates are normal. There is no indication of any contamination in the oil. The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is acceptable for the time in service.

Depot: WASGARIN **Unique No:** 10632431 Signed: Sean Felton Report Date: 06 Sep 2023



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