



CONSTRUCTION EQUIPMENT

VOLVO L180H 5720 - DIESEL ENGINE



Sample No: VCP432362
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No:



SAMPLE INFORMATION

Sample Number	VCP432362	VCP434600	VCP434821	VCP408658
Sample Date	20 Dec 2023	07 Nov 2023	13 Sep 2023	20 Jul 2023
Machine Hours	2139	1692	1126	593
Oil Hours	0	0	0	0
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	MARGINAL	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.7	12.6	12.4	11.3
Base Number (BN)	mg KOH/g	9.9	10.2	9.1	5.2
Oxidation (PA)	%	80	80	78	59



CONTAMINATION

Water	%	NEG	NEG	NEG	NEG
Soot %	%	0.1	0.1	0.2	0.1
Nitration (PA)	%	51	55	55	76
Sulfation (PA)	%	59	61	61	52
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	0.8
Silicon	ppm	4	7	10	24
Sodium	ppm	0	<1	2	4
Potassium	ppm	0	<1	1	4



WEAR METALS

Iron	ppm	0	4	8	16
Copper	ppm	<1	5	50	331
Lead	ppm	0	1	<1	<1
Tin	ppm	2	<1	<1	1
Aluminum	ppm	<1	<1	<1	2
Chromium	ppm	0	0	<1	<1
Molybdenum	ppm	39	42	46	82
Nickel	ppm	0	<1	1	<1
Titanium	ppm	0	0	0	0
Silver	ppm	0	0	0	0
Manganese	ppm	<1	<1	<1	3
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	1601	1572	1728	2022
Magnesium	ppm	485	550	435	22
Zinc	ppm	1155	1151	1152	1178
Phosphorus	ppm	937	973	935	960
Barium	ppm	0	0	0	0
Boron	ppm	58	36	35	43

Diagnosis

Resample at the next service interval to monitor. All 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 suitable for further service.

Depot: VOLVO0096
Unique No: 10807430
Signed: Wes Davis
Report Date: 28 Dec 2023

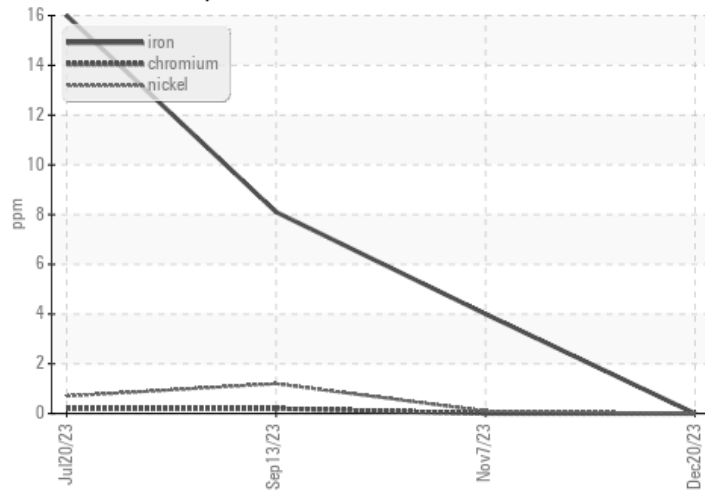


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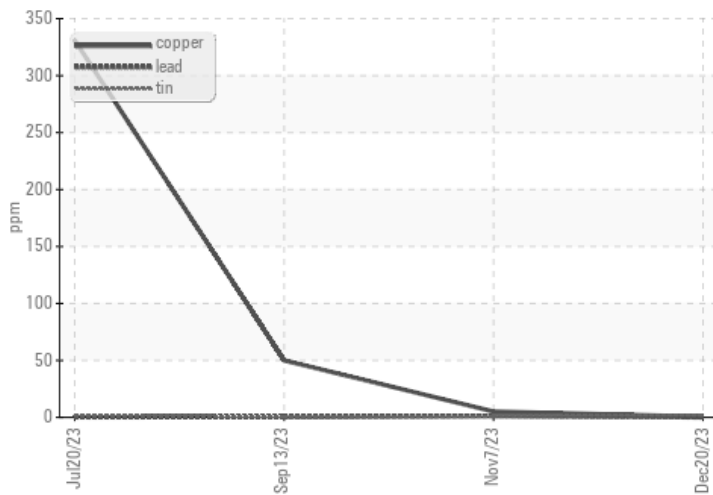


GRAPHS

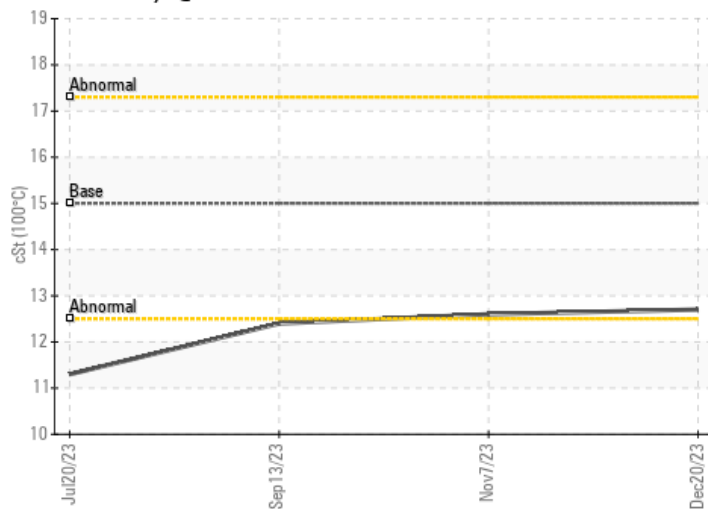
Ferrous Alloys



Non-ferrous Metals



Viscosity @ 100°C



Base Number

