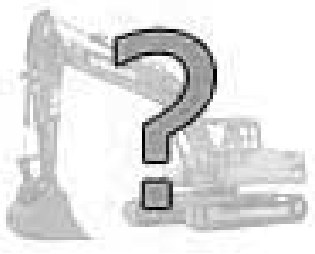
CONSTRUCTION EQUIPMENT

SWA408125 ALTER SENNEBOGEN 835 835.0.2740 - DIESEL ENGINE

Sample No: VCP421621
Oil Type: DIESEL ENGINE OIL SAE 15W40
Job No: SWA408125 ALTER



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SAMPLE INFORMATION

Sample Number		**VCP421621**	VCP423490	VCP373589	VCP325144
Sample Date		**03 Nov 2023**	11 Aug 2023	11 May 2023	16 Jul 2021
Machine Hours		**6952**	6443	5949	1956
Oil Hours		**0**	0	0	0
Oil Changed		**Changed**	Changed	Changed	Changed
Sample Status		**NORMAL**	NORMAL	MARGINAL	ABNORMAL

OIL CONDITION

Visc @ 100°C	cSt	**13.6**	13.5	12.1	14.0
Base Number (BN)	mg KOH/g	**8.9**	8.6	9.5	---
Oxidation (PA)	%	**65**	64	96	112

CONTAMINATION

Water	%	**NEG**	NEG	NEG	0.107
Soot %	%	**0.3**	0.3	0.2	0.3
Nitration (PA)	%	**65**	65	78	113
Sulfation (PA)	%	**55**	54	68	72
Glycol	%	**NEG**	NEG	NEG	0.0
Fuel	%	**<1.0**	<1.0	▲ 4.4	1.0
Silicon	ppm	**3**	3	3	9
Sodium	ppm	**0**	1	3	3
Potassium	ppm	**11**	7	3	53

WEAR METALS

Iron	ppm	**13**	10	9	26
Copper	ppm	**1**	<1	<1	2
Lead	ppm	**0**	0	<1	0
Tin	ppm	**0**	<1	<1	<1
Aluminum	ppm	**5**	4	<1	▲ 26
Chromium	ppm	**<1**	<1	0	1
Molybdenum	ppm	**63**	59	38	82
Nickel	ppm	**<1**	0	0	0
Titanium	ppm	**<1**	<1	<1	0
Silver	ppm	**0**	<1	0	0
Manganese	ppm	**0**	<1	<1	<1
Vanadium	ppm	**0**	<1	0	0

ADDITIVES

Calcium	ppm	**1088**	1122	1689	1791
Magnesium	ppm	**967**	977	483	596
Zinc	ppm	**1251**	1241	1096	1056
Phosphorus	ppm	**988**	994	846	775
Barium	ppm	**0**	0	0	0
Boron	ppm	**0**	<1	49	82

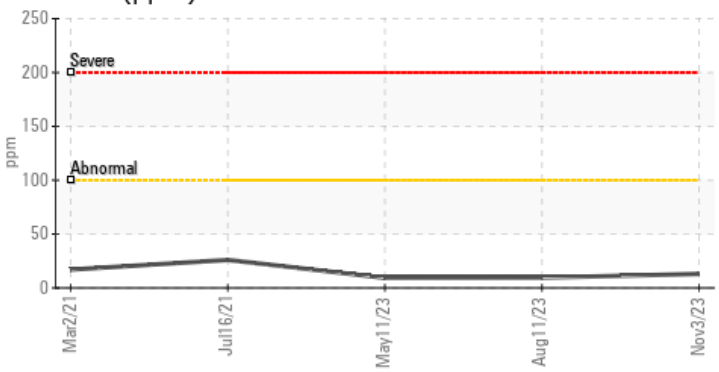
Diagnosis

Resample at the next service interval to monitor.All component wear rates are normal. Elevated aluminum (Al) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. 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.

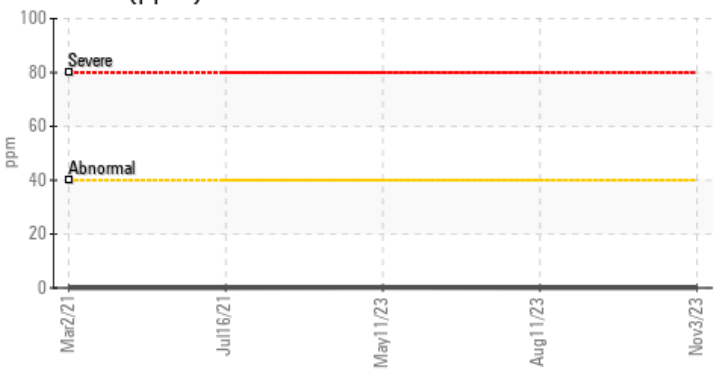
Depot: VOLVO5055
Unique No: 10751284
Signed: Wes Davis
Report Date: 21 Nov 2023

GRAPHS

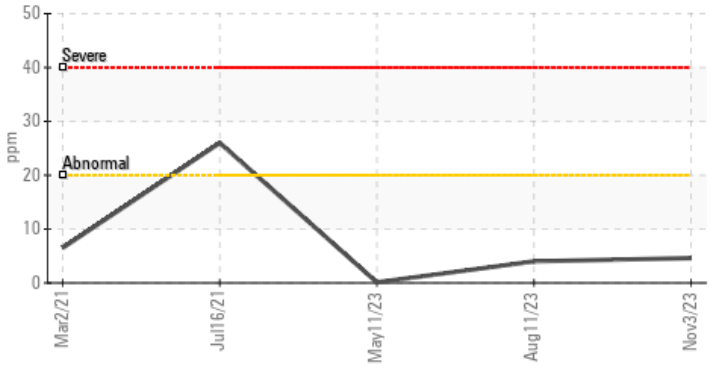
Iron (ppm)



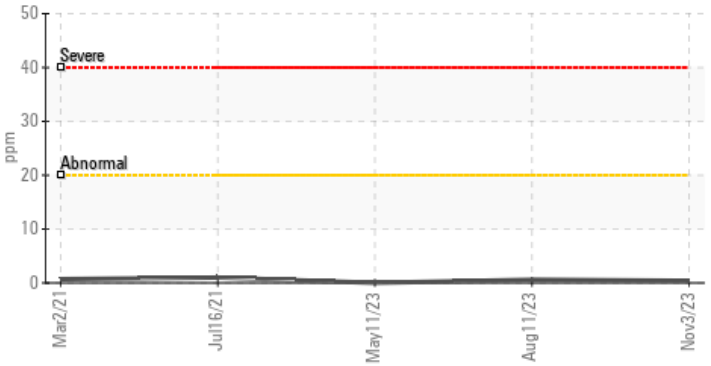
Lead (ppm)



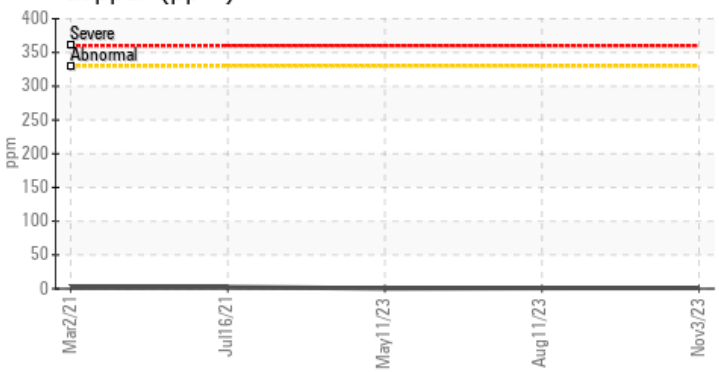
Aluminum (ppm)



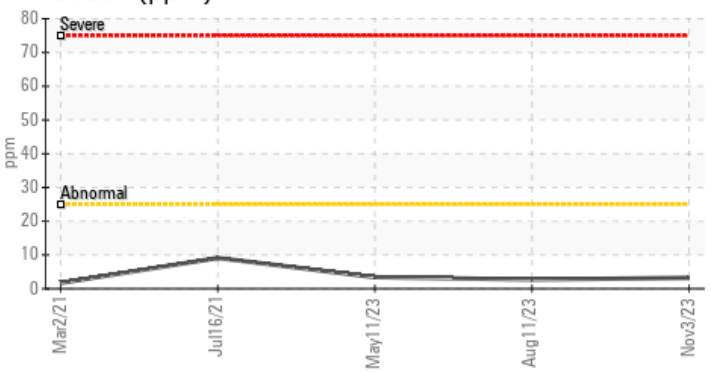
Chromium (ppm)



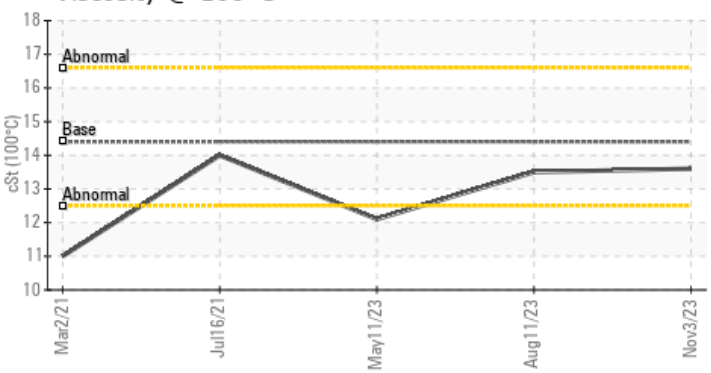
Copper (ppm)



Silicon (ppm)



Viscosity @ 100°C



Base Number