



CONSTRUCTION EQUIPMENT

SPM621718 SMS VOLVO L110H 631686 - DIESEL ENGINE



Sample No: VCP429887
Oil Type: VOLVO ULTRA DIESEL ENGINE OIL 15W40 VDS-3
Job No: SPM621718 SMS



SAMPLE INFORMATION

Sample Number	VCP429887	VCP422579	VCP401602	VCP372305
Sample Date	02 Nov 2023	06 Jul 2023	03 Feb 2023	14 Apr 2022
Machine Hours	4039	3075	2551	1301
Oil Hours	0	0	0	500
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

ALTA EQUIPMENT CO - ORLAND PARK
 5000 INDUSTRIAL HWY
 GARY, IN
 US 46406
 Contact: DAVE ENG
 DAVE.ENG@ALTG.COM
 T: (312)350-2560
 F:



OIL CONDITION

Visc @ 100°C	cSt	14.4	15.3	14.8	13.5
Base Number (BN)	mg KOH/g	8.7	9.9	10.2	9.4
Oxidation (PA)	%	69	53	56	90

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.



CONTAMINATION

Soot %	%	0.3	0.1	0.1	0.6
Nitration (PA)	%	59	40	40	88
Sulfation (PA)	%	55	48	50	66
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	4	4	4	9
Sodium	ppm	3	<1	<1	3
Potassium	ppm	2	<1	1	0



WEAR METALS

Iron	ppm	12	2	2	39
Copper	ppm	2	0	<1	17
Lead	ppm	1	0	0	1
Tin	ppm	<1	0	0	2
Aluminum	ppm	5	<1	3	▲ 31
Chromium	ppm	<1	0	0	2
Molybdenum	ppm	56	57	58	33
Nickel	ppm	0	0	0	<1
Titanium	ppm	<1	<1	0	<1
Silver	ppm	0	0	0	<1
Manganese	ppm	0	0	<1	1
Vanadium	ppm	<1	<1	0	0



ADDITIVES

Calcium	ppm	990	1060	1116	1585
Magnesium	ppm	895	1022	821	589
Zinc	ppm	1167	1257	1169	1054
Phosphorus	ppm	943	1029	967	891
Barium	ppm	7	0	<1	0
Boron	ppm	0	0	8	46

Depot: VOLVO8885
Unique No: 10737822
Signed: Don Baldrige
Report Date: 14 Nov 2023



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GRAPHS

