



CONSTRUCTION EQUIPMENT

CATERPILLAR M-2 - DIESEL ENGINE



Sample No: VCP408926
Oil Type: MOBIL DELVAC 1300 SUPER15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP408926	VCP403863	VCP405012	VCP390147
Sample Date	25 Oct 2023	20 Apr 2023	17 Mar 2023	07 Mar 2023
Machine Hours	5892	5559	5508	5507
Oil Hours	219	52	1	250
Oil Changed	Changed	Not Chngd	Not Chngd	Changed
Sample Status	NORMAL	MARGINAL	NORMAL	SEVERE

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OIL CONDITION

Visc @ 100°C	cSt	█ 12.7	█ 12.2	█ 13.6	▲ 10.8
Base Number (BN)	mg KOH/g	█ 10.2	█ 10.1	█ 10.4	█ 10.1
Oxidation (PA)	%	78	72	71	71

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 %	%	█ 0.4	█ 0.1	█ 0.1	█ 0.4
Nitration (PA)	%	50	43	39	58
Sulfation (PA)	%	60	57	58	57
Glycol	%	NEG	NEG	NEG	NEG
Fuel	%	<1.0	▲ 3.7	█ 0.7	● 9.0
Silicon	ppm	█ 23	█ 5	█ 8	█ 4
Sodium	ppm	█ 0	█ 2	█ 3	█ 2
Potassium	ppm	█ 2	█ 0	█ 2	█ <1



WEAR METALS

Iron	ppm	█ 6	█ 5	█ <1	█ 5
Copper	ppm	█ 1	█ <1	█ 0	█ <1
Lead	ppm	█ <1	█ 0	█ 0	█ 0
Tin	ppm	█ <1	█ 0	█ <1	█ <1
Aluminum	ppm	█ 2	█ 1	█ 1	█ 3
Chromium	ppm	█ 0	█ <1	█ <1	█ 0
Molybdenum	ppm	█ 40	█ 41	█ 40	█ 38
Nickel	ppm	█ <1	█ 0	█ 0	█ 0
Titanium	ppm	█ 0	█ 0	█ <1	█ 0
Silver	ppm	█ <1	█ 0	█ 0	█ 0
Manganese	ppm	█ <1	█ <1	█ 1	█ <1
Vanadium	ppm	0	0	<1	0



ADDITIVES

Calcium	ppm	█ 1503	█ 1685	█ 1668	█ 1554
Magnesium	ppm	481	█ 544	█ 526	█ 461
Zinc	ppm	█ 857	█ 899	█ 917	█ 806
Phosphorus	ppm	█ 768	█ 754	█ 716	█ 657
Barium	ppm	█ 4	█ 0	█ 0	█ 0
Boron	ppm	█ 47	█ 62	█ 56	█ 36

Depot: MARDIC
Unique No: 10723241
Signed: Wes Davis
Report Date: 01 Nov 2023



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GRAPHS

