



CONSTRUCTION EQUIPMENT

BACKHUS WT-5 - DIESEL ENGINE



Sample No: VCP416328
Oil Type: MOBIL DELVAC 1300 SUPER15W40
Job No:



SAMPLE INFORMATION

Sample Number	VCP416328	VCP358717	VCP249954	VCP306132
Sample Date	30 Aug 2023	21 Sep 2022	24 Nov 2021	18 Mar 2021
Machine Hours	1000	737	496	242
Oil Hours	263	250	250	193
Oil Changed	Changed	Changed	Changed	Changed
Sample Status	NORMAL	NORMAL	NORMAL	ABNORMAL

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OIL CONDITION

Visc @ 100°C	cSt	12.8	12.8	11.8	13.2
Base Number (BN)	mg KOH/g	9.2	9.8	6.6	---
Oxidation (PA)	%	73	90	80	57

CONTAMINATION

Soot %	%	0.1	0.1	0.1	0.1
Nitration (PA)	%	73	80	83	76
Sulfation (PA)	%	60	67	67	59
Glycol	%	NEG	NEG	0.0	NEG
Fuel	%	<1.0	<1.0	<1.0	<1.0
Silicon	ppm	8	8	7	14
Sodium	ppm	3	2	2	4
Potassium	ppm	62	28	60	39

WEAR METALS

Iron	ppm	8	7	9	20
Copper	ppm	15	60	246	618
Lead	ppm	0	<1	0	0
Tin	ppm	0	0	0	0
Aluminum	ppm	23	8	11	11
Chromium	ppm	<1	<1	<1	<1
Molybdenum	ppm	63	37	4	12
Nickel	ppm	0	0	0	0
Titanium	ppm	0	<1	<1	<1
Silver	ppm	1	1	2	<1
Manganese	ppm	<1	<1	<1	<1
Vanadium	ppm	0	0	0	1

ADDITIVES

Calcium	ppm	1432	1623	2760	2776
Magnesium	ppm	1002	556	30	94
Zinc	ppm	1383	999	1308	1184
Phosphorus	ppm	1103	793	1076	1005
Barium	ppm	0	0	0	0
Boron	ppm	15	26	71	11

Diagnosis

Oil and filter change at the time of sampling has been noted. No corrective action is recommended at this time. 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. No other contaminants were detected 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: MARDIC
Unique No: 10644723
Signed: Don Baldrige
Report Date: 14 Sep 2023



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GRAPHS

