



CONSTRUCTION EQUIPMENT

CATERPILLAR M-2 - TRANSMISSION (MANUAL)



Sample No: VCP416557
Oil Type: MOBIL MOBILTRANS HD 30
Job No:



SAMPLE INFORMATION

Sample Number	VCP416557	VCP390145	VCP340098	VCP366647
Sample Date	25 Oct 2023	07 Mar 2023	05 Jan 2023	07 Nov 2022
Machine Hours	5892	5507	5274	4984
Oil Hours	1899	500	250	991
Oil Changed	Not Chngd	Not Chngd	Not Chngd	Not Chngd
Sample Status	ABNORMAL	ABNORMAL	ABNORMAL	ABNORMAL

MARYLAND ENVIRONMENTAL SERVICES
 21210 MARTINSBURG RD
 DICKERSON, MD
 US 20842
 Contact: ALAN PARRISH
 aparr@menv.com
 T: (301)428-8185
 F: (301)428-8311



OIL CONDITION

Visc @ 40°C	cSt	28.3	26.7	27.2	22.1
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CONTAMINATION

Water	%	▲ 0.150	---	---	---
Silicon	ppm	■ 24	■ 3	■ 4	■ 4
Sodium	ppm	■ 2	■ 2	■ 3	■ 0
Potassium	ppm	■ 0	■ 0	■ <1	■ 2

Diagnosis

No corrective action is recommended at this time. Resample at the next service interval to monitor. Clutch and/or bushing/bearing wear is indicated. There is a light concentration of water present in the fluid. The condition of the fluid is acceptable for the time in service.



WEAR METALS

Iron	ppm	■ 37	■ 29	■ 18	■ 16
Copper	ppm	▲ 354	▲ 310	▲ 299	▲ 310
Lead	ppm	■ 20	■ 19	■ 19	■ 18
Tin	ppm	■ 6	■ 5	■ 6	■ 6
Aluminum	ppm	■ 1	■ <1	■ 1	■ 1
Chromium	ppm	■ 0	■ 0	■ <1	■ 0
Molybdenum	ppm	■ 2	■ 2	■ 2	2
Nickel	ppm	■ <1	■ 0	■ 5	■ 0
Titanium	ppm	0	0	0	0
Silver	ppm	■ 0	■ 0	■ <1	■ 1
Manganese	ppm	■ <1	■ 1	■ <1	<1
Vanadium	ppm	0	0	0	0



ADDITIVES

Calcium	ppm	■ 2652	■ 2571	■ 2708	2640
Magnesium	ppm	■ 25	■ 31	■ 29	20
Zinc	ppm	■ 1124	■ 1013	■ 1096	1116
Phosphorus	ppm	■ 802	■ 803	■ 873	913
Barium	ppm	■ 0	■ 0	■ 0	0
Boron	ppm	■ 4	■ 5	■ 4	7

Depot: MARDIC
Unique No: 10723504
Signed: Don Baldrige
Report Date: 02 Nov 2023

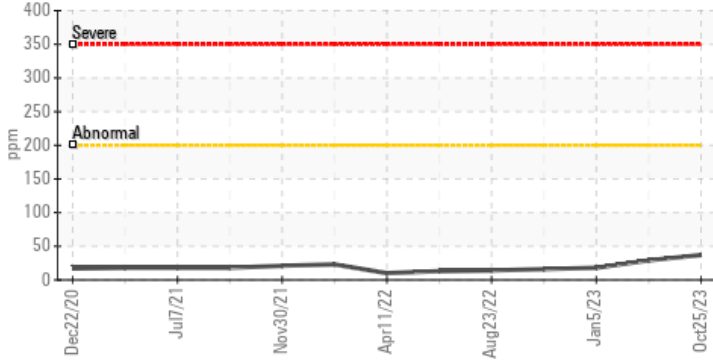


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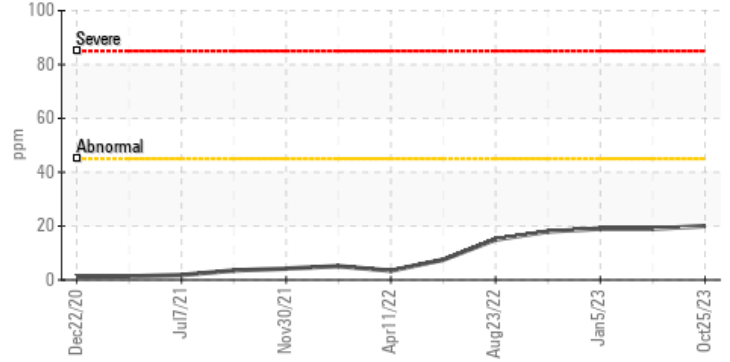


GRAPHS

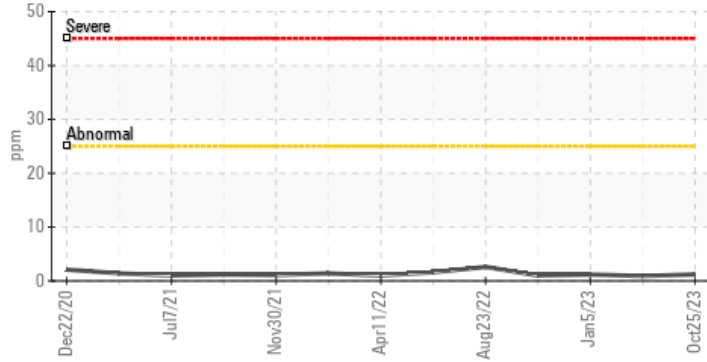
Iron (ppm)



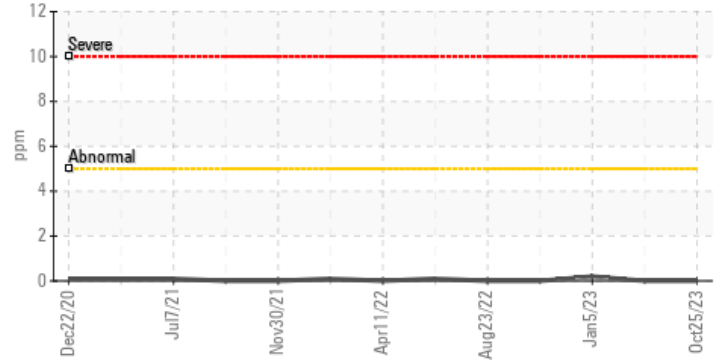
Lead (ppm)



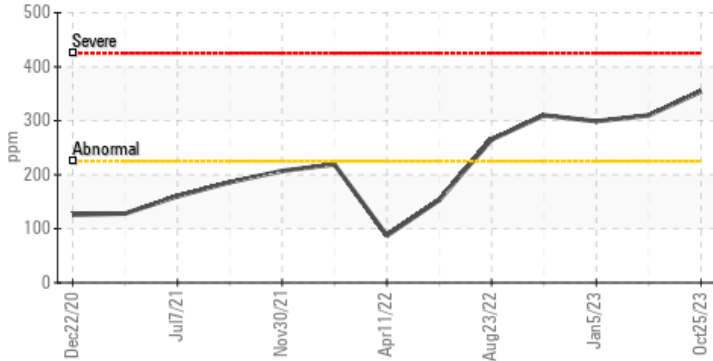
Aluminum (ppm)



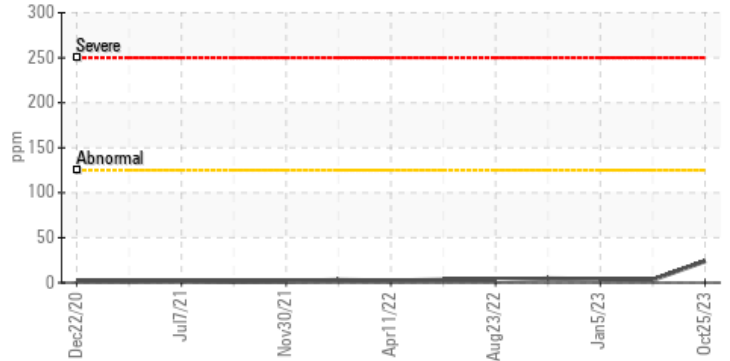
Chromium (ppm)



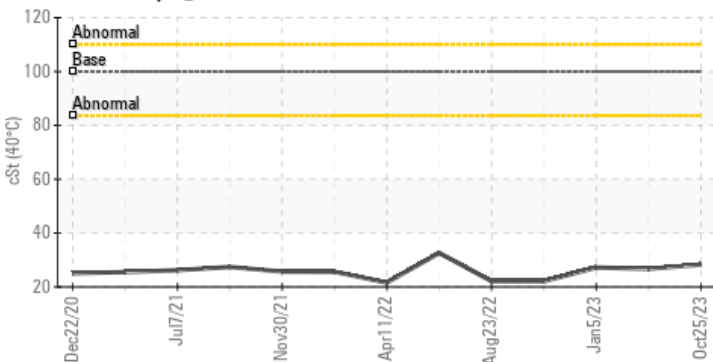
▲ Copper (ppm)



Silicon (ppm)



Viscosity @ 40°C



▲ Water

