

WEAR NORMAL CONTAMINATION SEVERE FLUID CONDITION NORMAL



Machine Id **CATERPILLAR 299D3 SL8301 (S/N JDY904881)** Component Hydraulic System Fluid

{not provided} (--- GAL)

RECOMMENDATION

Check seals and/or filters for points of contaminant entry. The air breather requires service. If unrated, we recommend that you replace with a suitable micron rated and/or desiccant air breather. If rated, we recommend that you service/replace the breather. We recommend you service the filters on this component. Resample in 30-45 days to monitor this situation. Please specify the brand, type, and viscosity of the oil on your next sample.

WEAR

All component wear rates are normal.

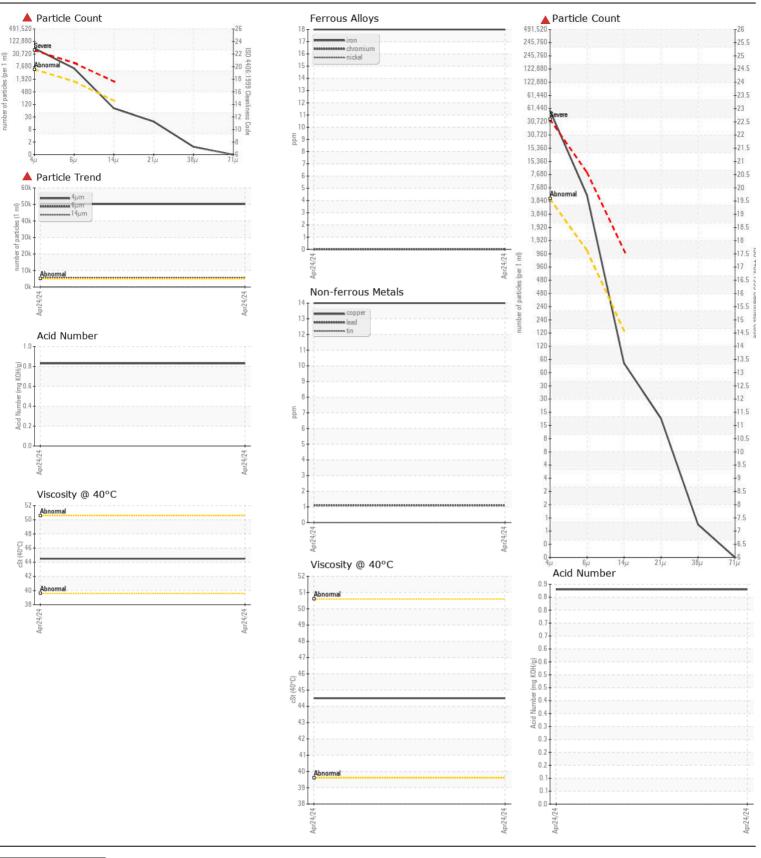
CONTAMINATION

There is a high amount of silt (particulates < 14 microns in size) present in the oil.

FLUID CONDITION

The AN level is acceptable for this fluid. The oil is still serviceable provided that the contaminant(s) can be reduced to acceptable levels.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		DC06160305		
Sample Date		Client Info		24 Apr 2024		
Machine Age	hrs	Client Info		1069		
Oil Age	hrs	Client Info		0		
Filter Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Filter Changed		Client Info		N/A		
Sample Status				SEVERE		
Iron	ppm	ASTM D5185m	>20	18		
Chromium	ppm	ASTM D5185m	>10	0		
Nickel	ppm	ASTM D5185m	>10	0		
Titanium	ppm	ASTM D5185m		0		
Silver	ppm	ASTM D5185m		0		
Aluminum	ppm	ASTM D5185m	>10	1		
Lead	ppm	ASTM D5185m	>10	1		
Copper	ppm	ASTM D5185m	>75	14		
Tin	ppm	ASTM D5185m	>10	0		
Vanadium	ppm	ASTM D5185m	-	0		
White Metal	scalar	*Visual	NONE	NONE		
Yellow Metal	scalar	*Visual	NONE	NONE		
Silicon	ppm	ASTM D5185m	>20	2		
Potassium	ppm	ASTM D5185m	>20	<1		
Water		WC Method	>0.1	NEG		
Particles >4µm		ASTM D7647	>5000	4 50193		
Particles >6µm		ASTM D7647	>1300	6 5523		
Particles >14µm		ASTM D7647	>160	68		
Particles >21µm		ASTM D7647	>40	16		
Particles >38µm		ASTM D7647	>10	1		
Particles >71µm		ASTM D7647	>3	0		
Oil Cleanliness		ISO 4406 (c)	>19/17/14	4 23/20/13		
Silt	scalar	*Visual	NONE	NONE		
Debris	scalar	*Visual	NONE	NONE		
Sand/Dirt	scalar	*Visual	NONE	NONE		
Appearance	scalar	*Visual	NORML	NORML		
Odor	scalar	*Visual	NORML	NORML		
Emulsified Water		*Visual	>0.1	NEG		
Sodium	ppm	ASTM D5185m		2		
Boron	ppm	ASTM D5185m		5		
Barium	ppm	ASTM D5185m		<1		
Molybdenum	ppm	ASTM D5185m		3		
Manganese	ppm	ASTM D5185m		<1		
Magnesium	ppm	ASTM D5185m		31		
Calcium	ppm	ASTM D5185m		422		
Phosphorus	ppm	ASTM D5185m		761		
Zinc	ppm	ASTM D5185m		924		
Sulfur	ppm	ASTM D5185m		2279		
Acid Number (AN)	mg KOH/g	ASTM D8045		0.83		
Visc @ 40°C	cSt	ASTM D445		44.5		
1.00 @ 10 0	501					



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