

OIL ANALYSIS REPORT

Sample Rating Trend

NORMAL

ARBURG E-05 (S/N 256386)

Hydraulic System Fluid AW HYDRAULIC OIL ISO 46 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The amount and size of particulates present in the system are acceptable. There is no indication of any contamination in the oil.

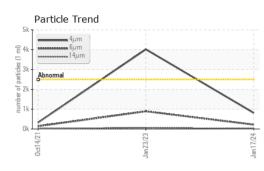
Fluid Condition

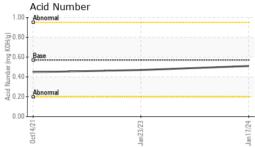
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

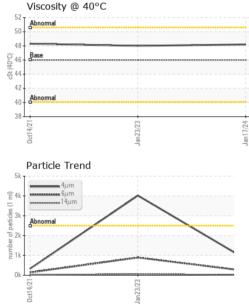
Sample Date Client Info 17 Jan 2024 23 Jan 2023 14 Oct 2021 Machine Age yrs Client Info 0 0 0 Oil Age yrs Client Info 0 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Client Info N/A N/A N/A N/A CONTAMINATION method Imit/base current history1 history2 Water WC Method >0.05 NEG NEG NEG WEAR METALS method imit/base current history1 history2 Iron ppm ASTM D5185m >20 0 0 0 Nickel ppm ASTM D5185m >20 0 0 0 Astm D5185m >20 0 0 0 0 0 Astm D5185m >20 3 3 2 1 0 Astm D5185m >20 0			Oct	2021	Jan2023 Jan2	024	
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Particles >6μm ASTM D7647 >320 217 892 142 Particles >14μm ASTM D7647 >80 22 61 18 Particles >21μm ASTM D7647 >20 6 17 3 Particles >38μm ASTM D7647 >4 0 1 0 Particles >71μm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m Method ASTM D5185m ASTM D5185m	5 5 5 25 200 300 370 2500 2500 kimit/base >15	0 0 2 3 1 1 81 473 601 2336 2336 current <1 3	history1 0 1 0 <1 <1 82 462 623 2476 history1 <1 0	0 0 0 <1 0 92 474 597 2268 history2 0 2
Particles >14μm ASTM D7647 >80 22 61 18 Particles >21μm ASTM D7647 >20 6 17 3 Particles >38μm ASTM D7647 >4 0 1 0 Particles >71μm ASTM D7647 >3 0 0 0	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	5 5 5 200 300 370 2500 limit/base >15 >20	0 0 (<1 1 81 473 601 2336 current <1 3 0	history1 0 1 0 <1 <1 82 462 623 2476 history1 <1 0 <1	0 0 0 <1 0 92 474 597 2268 history2 0 2 0 2 0
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	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	5 5 5 200 300 370 2500 2500 2500 >15 >20 <u>limit/base</u> >2500 >320 >320 >80	0 0 0 <1 1 81 473 601 2336 current <1 3 0 current 814 217 22	history1 0 1 0 <1 <1 82 462 623 2476 history1 <1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 892 61	0 0 0 0 4 1 0 92 474 597 2268 history2 0 2268 0 2 0 0 2 0 0 1 2 0 0 1 2 1 4 2 1 8
Oil Cleanliness ISO 4406 (c) >18/15/13 17/15/12 19/17/13 16/14/11	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 2500 >15 >20 imit/base >2500 >320 >320 >320	0 0 0 <1 1 81 473 601 2336 current <1 3 0 current 814 217 22 6	history1 0 1 0 <1 <1 82 462 623 2476 history1 <1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 10 <1 17	0 0 0 3 4 1 0 92 4 7 4 597 2268 history2 0 2 2 0 2 0 0 history2 326 1 4 2 1 8 3 3
	Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 2500 2500 >15 20 20 2500 >22 320 >320 >80 >20 >4	0 0 0 <1 1 81 473 601 2336 current <1 3 0 current 814 217 22 6 0	history1 0 1 0 <1 <1 82 462 623 2476 history1 <1 0 <1 0 <1 0 <1 0 <1 0 <1 0 <1 1 4019 892 61 17 1	0 0 0 9 474 597 2268 history2 0 2 0 2 0 history2 326 142 18 3 3 0



OIL ANALYSIS REPORT



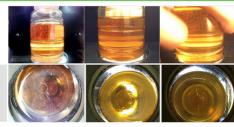


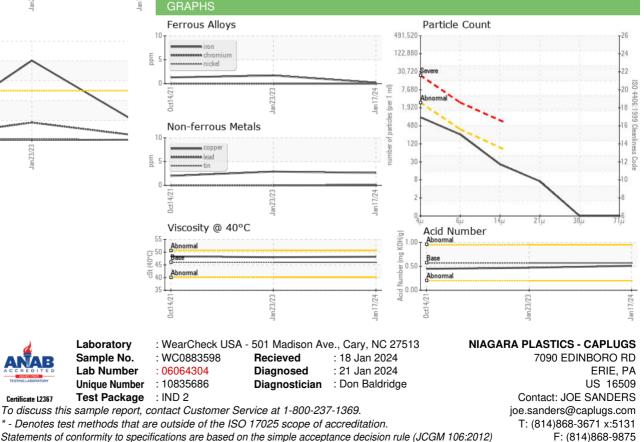


FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D8045	0.57	0.51	0.47	0.448
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Emulsified Water	scalar	*Visual	>0.05	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	48.2	48.0	48.3
SAMPLE IMAGES	\$	method	limit/base	current	history1	history2

Color

Bottom





Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

Certificate L2367

Contact/Location: JOE SANDERS - NIAERI