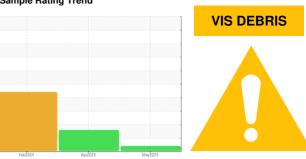


## **OIL ANALYSIS REPORT**

Sample Rating Trend



Machine Id

# **SENNEBOGEN 835 MH-87**

**Hydraulic System** 

AW HYDRAULIC OIL ISO 46 (--- GAL)

### **DIAGNOSIS**

#### Recommendation

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. We were unable to perform a particle count due to a high concentration of particles present in this sample.

#### Wear

All component wear rates are normal.

#### Contamination

Moderate concentration of visible dirt/debris present in the oil.

### **Fluid Condition**

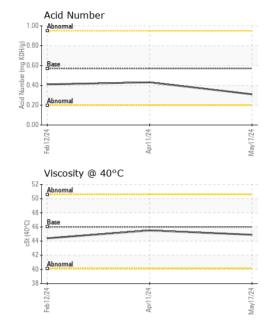
The AN level is acceptable for this fluid. The condition of the oil is suitable for further service.

	Feb 2024		2024	Apr2024 May2024		
SAMPLE INFORI	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		PCA0124691	PCA0120881	PCA0113825
Sample Date		Client Info		17 May 2024	11 Apr 2024	12 Feb 2024
Machine Age	hrs	Client Info		4256	3964	3476
Oil Age	hrs	Client Info		292	0	250
Oil Changed		Client Info		Changed	Changed	N/A
Sample Status				ABNORMAL	ABNORMAL	SEVERE
CONTAMINAT	ION	method	limit/base	ourront.	hiotonul	history2
	ION			current	history1	
Water	_	WC Method		NEG	NEG	NEG
WEAR METAL	S	method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185m	>20	<1	0	2
Chromium	ppm	ASTM D5185m	>10	1	<1	<1
Nickel	ppm	ASTM D5185m	>10	<1	<1	0
Titanium	ppm	ASTM D5185m		<1	<1	0
Silver	ppm	ASTM D5185m		<1	<1	0
Aluminum	ppm	ASTM D5185m	>10	0	2	0
Lead	ppm	ASTM D5185m	>10	1	1	<1
Copper	ppm	ASTM D5185m	>75	<1	<1	1
Tin	ppm	ASTM D5185m	>10	0	1	<1
Vanadium	ppm	ASTM D5185m		<1	<1	0
Cadmium	ppm	ASTM D5185m		<1	<1	0
ADDITIVES		method	limit/base	current	hiotoryd	history2
ADDITIVES		method	IIIIII basc	current	history1	HISTOLYZ
Boron	ppm	ASTM D5185m	5	0	0	0
	ppm					
Boron		ASTM D5185m	5	0	0	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	5 5	0 0	0 <1	0
Boron Barium Molybdenum	ppm	ASTM D5185m ASTM D5185m ASTM D5185m	5 5	0 0 0	0 <1 1	0 0 0
Boron Barium Molybdenum Manganese	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5	0 0 0 0	0 <1 1 <1	0 0 0 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25	0 0 0 0	0 <1 1 <1 <1	0 0 0 <1 2
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200	0 0 0 0 0 71	0 <1 1 <1 <1 <1 <1 <55	0 0 0 <1 2 103
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200 300	0 0 0 0 0 71 341	0 <1 1 <1 <1 <1 <55 327	0 0 0 <1 2 103 316
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200 300 370	0 0 0 0 0 71 341 459	0 <1 1 <1 <1 <1 <1 55 327 422	0 0 0 <1 2 103 316 438
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base	0 0 0 0 0 71 341 459 952	0 <1 1 1 <1 <1 <55 327 422 860 history1	0 0 0 <1 2 103 316 438 880 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	5 5 5 25 200 300 370 2500	0 0 0 0 0 71 341 459 952 current	0 <1 1 1 <1 <1 <55 327 422 860 history1 2	0 0 0 <1 2 103 316 438 880 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20	0 0 0 0 0 71 341 459 952	0 <1 1 1 <1 <1 <55 327 422 860 history1	0 0 0 <1 2 103 316 438 880 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20	0 0 0 0 0 71 341 459 952 current <1 1	0 <1 1 1 <1 <1 <1 <2	0 0 0 <1 2 103 316 438 880 history2 <1 2 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20 	0 0 0 0 0 71 341 459 952 current <1 1 0	0 <1 1 1 <1 <1 <1 <21 <41 <55 327 422 860 history1 2 0 1 history1	0 0 0 <1 2 103 316 438 880 history2 <1 2 <1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20 limit/base >5000	0 0 0 0 0 71 341 459 952 current <1 1 0	0	0 0 0 <1 2 103 316 438 880 history2 <1 2 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  MEthod ASTM D5185m	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300	0 0 0 0 0 71 341 459 952 current <1 1 0	0	0 0 0 <1 2 103 316 438 880 history2 <1 2 <1 history2 ▲ 52029 ▲ 13192
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method ASTM D5185m ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160	0 0 0 0 0 71 341 459 952 current <1 1 0 current	0	0 0 0 <1 2 103 316 438 880 history2 <1 2 <1 2 <1 history2 ▲ 52029 ▲ 13192 ▲ 745
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  method ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160 >40	0 0 0 0 0 71 341 459 952 current <1 1 0 current	0	0 0 0 <1 2 103 316 438 880 history2 <1 2 <1 2 <1 history2 ▲ 52029 ▲ 13192 ▲ 745 ▲ 163
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m  Method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	0 0 0 0 0 71 341 459 952 current <1 1 0 current	0 <1 1 1	0 0 0 <1 2 103 316 438 880 history2 <1 2 <1 2 <1 history2 ▲ 52029 ▲ 13192 ▲ 745 ▲ 163 3
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur  CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >6µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10 >3	0 0 0 0 0 71 341 459 952 current <1 1 0 current	0	0 0 0 <1 2 103 316 438 880 history2 <1 2 <1 2 <1 bistory2 ▲ 52029 ▲ 13192 ▲ 745 ▲ 163 3 0
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINAN Silicon Sodium Potassium FLUID CLEANI Particles >4µm Particles >51µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7647	5 5 5 25 200 300 370 2500 limit/base >20 >20 limit/base >5000 >1300 >160 >40 >10	0 0 0 0 0 71 341 459 952 current <1 1 0 current	0 <1 1 1	0 0 0 <1 2 103 316 438 880 history2 <1 2 <1 2 <1 history2 ▲ 52029 ▲ 13192 ▲ 745 ▲ 163 3

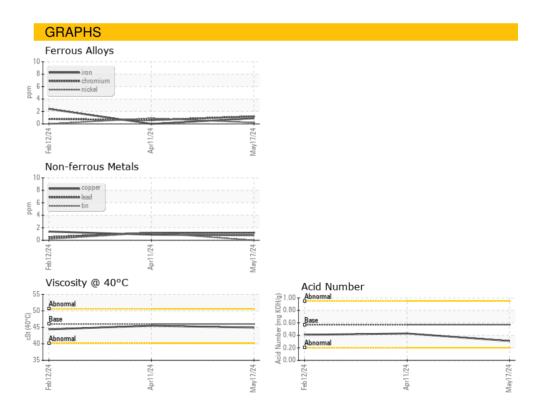
Acid Number (AN)



## **OIL ANALYSIS REPORT**



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	MODER	LIGHT	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.1	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPE	RTIES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D445	46	44.9	45.5	44.4
SAMPLE IMAG	ES	method	limit/base	current	history1	history2
Color						







Laboratory Sample No.

: PCA0124691 Lab Number : 06186672

**Bottom** 

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Unique Number : 11043424

Received : 21 May 2024 **Tested** Diagnosed

: 23 May 2024 : 23 May 2024 - Don Baldridge

SCRAP METAL SERVICES NON-FERROUS DIVISION 3000 W 139TH ST BLUE ISLAND, IL

US 60406 Contact: SERGIO FERNANDEZ

Test Package : MOB 2 Certificate 12367 To discuss this sample report, contact Customer Service at 1-800-237-1369.

sfernandez@scrapmetalservices.com T:

\* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

F: