

OIL ANALYSIS REPORT

Hendrickson Spring - H00200 A2401084

Component **Hydraulic System** AW HYDRAULIC OIL ISO 46 (--- GAL)

Recommendation

This is a baseline read-out on the submitted sample.

Wear

Copper and iron ppm levels are noted.

Contamination {not applicable}

Fluid Condition {not applicable}



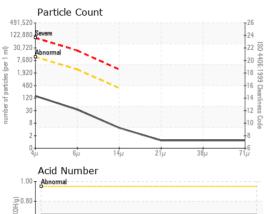
Sample Rating Trend



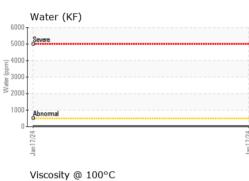
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Batch #		Client Info		2024 01 0070		
Department		Client Info		Production		
Sample From		Client Info		Machine		
Production Stage		Client Info		Final		
Sent to WC		Client Info		01/17/2024		
Sample Number		Client Info		E30001200		
Sample Date		Client Info		17 Jan 2024		
Machine Age	hrs	Client Info		0		
Oil Age	hrs	Client Info		0		
Oil Changed		Client Info		N/A		
Sample Status				NORMAL		
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>20	15		
Chromium	ppm	ASTM D5185(m)	>20	<1		
Nickel	ppm	ASTM D5185(m)	>20	<1		
Titanium	ppm	ASTM D5185(m)		0		
Silver	ppm	ASTM D5185(m)		0		
Aluminum	ppm	ASTM D5185(m)	>20	2		
Lead	ppm	ASTM D5185(m)	>20	6		
Copper	ppm	ASTM D5185(m)	>20	14		
Tin	ppm	ASTM D5185(m)	>20	4		
Antimony	ppm	ASTM D5185(m)		0		
Vanadium	ppm	ASTM D5185(m)		0		
Beryllium	ppm	ASTM D5185(m)		0		
Cadmium	ppm	ASTM D5185(m)		0		
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	5	<1		
Barium	ppm	ASTM D5185(m)	5	0		
Molybdenum	ppm	ASTM D5185(m)	5	0		
Manganese	ppm	ASTM D5185(m)		<1		
Magnesium	ppm	ASTM D5185(m)	25	59		
Calcium	ppm	ASTM D5185(m)	200	85		
Phosphorus	ppm	ASTM D5185(m)	300	464		
Zinc	ppm	ASTM D5185(m)	370	472		
Sulfur	ppm	ASTM D5185(m)	2500	1523		
Lithium	ppm	ASTM D5185(m)		<1		
CONTAMINANTS		method	limit/base	current	history1	history2
Silicon	ppm	ASTM D5185(m)	>15	2		
Sodium	ppm	ASTM D5185(m)		7		
Potassium	ppm	ASTM D5185(m)	>20	1		
Water	%	ASTM D6304*	>0.05	0.002		
ppm Water	ppm	ASTM D6304*	>500	23		

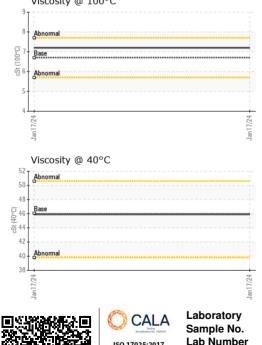


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	IESS	method	limit/base	current	history1	history2
Particles >4µm		ASTM D7647	>10000	135		
Particles >6µm		ASTM D7647	>2500	30		
Particles >14µm		ASTM D7647	>320	4		
Particles >21µm		ASTM D7647	>80	1		
Particles >38µm		ASTM D7647	>20	1		
Particles >71µm		ASTM D7647	>4	1		
Oil Cleanliness		ISO 4406 (c)	>20/18/15	14/12/9		
FLUID DEGRADA	TION	method	limit/base	current	history1	history2
Acid Number (AN)	mg KOH/g	ASTM D974*	0.57	0.66		
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	Visual*	NONE	NONE		
Yellow Metal	scalar	Visual*	NONE	NONE		
Precipitate	scalar	Visual*	NONE	NONE		
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	scalar	Visual*	>0.05	NEG		
Free Water	scalar	Visual*		NEG		
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 40°C	cSt	ASTM D7279(m)	46	45.9		
Visc @ 100°C	cSt	ASTM D7279(m)	6.7	7.2		
Viscosity Index (VI)	Scale	ASTM D2270*	97	117		
SAMPLE IMAGES	5	method	limit/base	current	history1	history2
Color					no image	no image

