

OIL ANALYSIS REPORT

Sample Rating Trend





359 Component Hydraulic System

Area RONI Machine Id

JOHN DEERE HYDRAU (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

The system cleanliness is acceptable for your target ISO 4406 cleanliness code. The system and fluid cleanliness is acceptable.

Fluid Condition

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

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0920725	LH0275209	
Sample Date		Client Info		29 Jun 2024	26 Aug 2023	
Machine Age	hrs	Client Info		0	12093	
Oil Age	hrs	Client Info		0	0	
Oil Changed		Client Info		Not Changd	Changed	
Sample Status				NORMAL	ATTENTION	
CONTAMINATION	N	method	limit/base	current	history1	history2
Water		WC Method	>0.075	NEG	NEG	
WEAR METALS		method	limit/base	current	history1	history2
Iron	ppm	ASTM D5185(m)	>23	6	20	
Chromium	ppm	ASTM D5185(m)	>9	2	7	
Nickel	ppm	ASTM D5185(m)	>5	<1	0	
Titanium	ppm	ASTM D5185(m)		0	<1	
Silver	ppm	ASTM D5185(m)		0	0	
Aluminum	ppm	ASTM D5185(m)	>9	1	2	
Lead	ppm	ASTM D5185(m)	>28	0	<1	
Copper	ppm	ASTM D5185(m)	>51	1	6	
Tin	ppm	ASTM D5185(m)	>5	0	<1	
Antimony	ppm	ASTM D5185(m)		0	0	
Vanadium	ppm	ASTM D5185(m)		0	0	
Beryllium	ppm	ASTM D5185(m)		0	0	
Cadmium	ppm	ASTM D5185(m)		0	0	
ADDITIVES		method	limit/base	current	history1	history2
Boron	ppm	ASTM D5185(m)	limit/base	<1	2	history2
Boron Barium	ppm ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	<1 0	2 0	
Boron Barium Molybdenum		ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 0 0	2 0 1	
Boron Barium Molybdenum Manganese	ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	<1 0 0 0	2 0 1 <1	
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		<1 0 0 0 1	2 0 1 <1 6	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	87	<1 0 0 1 76	2 0 1 <1 6 98	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	87 727	<1 0 0 1 76 474	2 0 1 <1 6 98 603	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	87 727 900	<1 0 0 1 76 474 606	2 0 1 <1 6 98 603 718	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	87 727	<1 0 0 1 76 474 606 1062	2 0 1 <1 6 98 603 718 1335	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	87 727 900 1500	<1 0 0 1 76 474 606	2 0 1 <1 6 98 603 718	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	87 727 900 1500 limit/base	<1 0 0 1 76 474 606 1062 <1 current	2 0 1 <1 6 98 603 718 1335 <1 history1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m)	87 727 900 1500 limit/base >31	<1 0 0 1 76 474 606 1062 <1 <i>current</i>	2 0 1 <1 6 98 603 718 1335 <1 history1 8	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) method ASTM D5185(m) ASTM D5185(m)	87 727 900 1500 limit/base >31 >21	<1 0 0 1 76 474 606 1062 <1 current 1 0	2 0 1 <1 6 98 603 718 1335 <1 history1 8 1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	87 727 900 1500 limit/base >31 >21 >20	<1 0 0 1 76 474 606 1062 <1 <i>current</i>	2 0 1 <1 6 98 603 718 1335 <1 history1 8 1 1 1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	87 727 900 1500 limit/base >31 >21 >20 limit/base	<1 0 0 1 76 474 606 1062 <1 <i>current</i> 1 0 0 0	2 0 1 <1 6 98 603 718 1335 <1 history1 8 1 1 1 history1	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	87 727 900 1500 limit/base >31 >21 >20 limit/base >80000	<1 0 0 1 76 474 606 1062 <1 <i>current</i> 1 0 0 0 <i>current</i>	2 0 1 <1 6 98 603 718 1335 <1 history1 8 1 1 1 1 1 1 1 1 05231	 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	87 727 900 1500 limit/base >31 >21 >20 limit/base >80000 >20000	<1 0 0 1 76 474 606 1062 <1 <i>current</i> 1 0 0 <i>current</i> 42558 2117	2 0 1 <1 6 98 603 718 1335 <1 history1 8 1 1 1 history1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >6µm Particles >14µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647	87 727 900 1500 imit/base >31 >21 >20 imit/base >80000 >20000 >640	<1 0 0 1 76 474 606 1062 <1 <i>current</i> 1 0 0 <i>current</i> 42558 2117 63	2 0 1 <1 6 98 603 718 1335 <1 history1 8 1 3 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	87 727 900 1500 ilimit/base >31 >21 >20 ilimit/base >80000 >20000 >640 >160	<1 0 0 1 76 474 606 1062 <1 Current 1 0 0 Current 42558 2117 63 15	2 0 1 4 6 98 603 718 1335 4 1335 4 1 3 5 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1 0 1	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	87 727 900 1500 limit/base >31 >21 >20 limit/base >80000 >20000 >640 >160 >40	<1 0 0 1 76 474 606 1062 <1 Current 1 0 0 Current 42558 2117 63 15 3	2 0 1 4 6 98 603 718 1335 <1 1335 <1 1335 <1 1335 <1 1335 <1 105231 1 7903 12 5 0	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >21µm Particles >38µm Particles >71µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	87 727 900 1500 iimit/base >31 >21 >20 iimit/base >80000 >20000 >640 >160 >40 >40	<1 0 0 1 76 474 606 1062 <1 Current 1 0 0 Current 42558 2117 63 15 3 2	2 0 1 4 6 98 603 718 1335 <1 history1 8 1 1 1 1 1 1 1 1 5 5 0 0 0	 history2 history2 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium FLUID CLEANLIN Particles >4µm Particles >14µm Particles >21µm Particles >38µm	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7647 ASTM D7647 ASTM D7647 ASTM D7647	87 727 900 1500 limit/base >31 >21 >20 limit/base >80000 >20000 >640 >160 >40	<1 0 0 1 76 474 606 1062 <1 Current 1 0 0 Current 42558 2117 63 15 3 2 23/18/13	2 0 1 4 6 98 603 718 1335 <1 1335 <1 1335 <1 1335 <1 1335 <1 105231 1 7903 12 5 0	 history2 history2 history2



OIL ANALYSIS REPORT

Acid Number (AN) VISUAL White Metal Yellow Metal Precipitate Silt Debris	mg KOH/g scalar scalar	ASTM D974* method	1.0	0.61		
White Metal Yellow Metal Precipitate Silt	scalar	methoa		ourroad	biotorut	history
Yellow Metal Precipitate Silt	scalar		limit/base	current	history1	history2
Precipitate Silt		Visual*	NONE	NONE	NONE	
Silt		Visual*	NONE	NONE	NONE	
	scalar	Visual*	NONE	NONE	NONE	
Debris	scalar	Visual*	NONE	NONE	VLITE	
0 1/D: 1	scalar	Visual*	NONE	NONE	NONE	
Sand/Dirt	scalar	Visual*	NONE	NONE	NONE	
Appearance	scalar	Visual*	NORML	NORML	NORML	
			>0.075			
			11			_
-					, in the second s	history2
	cSt	ASTM D7279(m)	65	48.5	54.4	
SAMPLE IMAGE	S	method	limit/base	current	history1	history2
Color						no image
Bottom						no image
GRAPHS						
-				senticle Count		
20			491,520	I		T ²
15-			122,880	Abnormal		-24
a. 10 - Massian nickel			30,720			-22
5						
/23			5 = 1,000			21
0			1.1			-21
Aug26/23			Jun 29/24 ss (per 1 ml			-20
Non-ferrous Meta	als		Jun29/24- Jun29/24- 1056 (per 1 ml) 800		•	-20 -10 -10
Non-ferrous Meta	ils		73			-21 -18 -16 -14
Non-ferrous Meta	ils		rotted to aquer 120			-21 -18 -16 -17 -17
Non-ferrous Meta	ls		pitted jo			-12
Non-ferrous Meta	lls		rotted to aquer 120			the set of the set of the set of the set
Non-ferrous Meta	ls		120 120 120 30			-12
Non-ferrous Meta			rotted to aquer 120		144 214	
Non-ferrous Meta			routed to argumnu 300 88 82/62/unf 0	μu 6μ	14μ 21μ	-12
Non-ferrous Meta			routed to a square build be a	μu 6μ	14μ 21μ	
Non-ferrous Meta			rique d 10 120 120 120 120 120 120 120 120 120 120	μu 6μ	14μ 21μ	
Non-ferrous Meta			rique d 10 120 120 120 120 120 120 120 120 120 120	μu 6μ	14μ 21μ	
Non-ferrous Meta			rique d 10 120 120 120 120 120 120 120 120 120 120	μu 6μ	14μ 21μ	
Non-ferrous Meta			routed to a square build be a	μu 6μ	14μ 21μ	
	Visc @ 40°C SAMPLE IMAGE Color Bottom GRAPHS Ferrous Alloys	Emulsified Water scalar Free Water scalar FLUID PROPERTIES Visc @ 40°C Visc @ 40°C cSt SAMPLE IMAGES Color Bottom GRAPHS Ferrous Alloys 10 10 10 10 10 10 10 10 10 10 10	Emulsified Water scalar Visual* Free Water scalar Visual* FLUID PROPERTIES method Visc @ 40°C cSt ASTM D7279(m) SAMPLE IMAGES method Color GRAPHS Ferrous Alloys Ferrous Alloys	Emulsified Water scalar Visual* >0.075 Free Water scalar Visual* Imit/base FLUID PROPERTIES method Imit/base Visc @ 40°C cSt ASTM D7279(m) 65 SAMPLE IMAGES method Imit/base Color Color Imit/base GRAPHS Imit/base Imit/base Ferrous Alloys 491,520 122,880 Mark Imit/base 124,880 <t< td=""><td>Emulsified Water scalar Visual* >0.075 NEG Free Water scalar Visual* NEG FLUID PROPERTIES method limit/base current Visc @ 40°C cSt ASTM D7279(m) 65 48.5 SAMPLE IMAGES method limit/base current Color Imit/base current Bottom Imit/base current Ferrous Alloys Imit/base current Imit/base Imit/base current Imit/base Imit/base current</td><td>Emulsified Water scalar Visual* >0.075 NEG NEG Free Water scalar Visual* NEG NEG FLUID PROPERTIES method limit/base current history1 Visc @ 40°C cSt ASTM D7279(m) 65 48.5 54.4 SAMPLE IMAGES method limit/base current history1 Color Imit/base current history1 Bottom Imit/base current bistory1 Ferrous Alloys Imit/base count Imit/base Imit/Date Imit/base Imit/base Imit/base Imit/base Imit/base current history1 Imit/base Imit/base current history1 Imit/base Imit/base current history1 Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base</td></t<>	Emulsified Water scalar Visual* >0.075 NEG Free Water scalar Visual* NEG FLUID PROPERTIES method limit/base current Visc @ 40°C cSt ASTM D7279(m) 65 48.5 SAMPLE IMAGES method limit/base current Color Imit/base current Bottom Imit/base current Ferrous Alloys Imit/base current Imit/base Imit/base current Imit/base Imit/base current	Emulsified Water scalar Visual* >0.075 NEG NEG Free Water scalar Visual* NEG NEG FLUID PROPERTIES method limit/base current history1 Visc @ 40°C cSt ASTM D7279(m) 65 48.5 54.4 SAMPLE IMAGES method limit/base current history1 Color Imit/base current history1 Bottom Imit/base current bistory1 Ferrous Alloys Imit/base count Imit/base Imit/Date Imit/base Imit/base Imit/base Imit/base Imit/base current history1 Imit/base Imit/base current history1 Imit/base Imit/base current history1 Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base Imit/base

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