

OIL ANALYSIS REPORT

Sample Rating Trend



CASE 2388

Component **Diesel Engine**

Fluid

NEW HOLLAND AMBRA MASTERGOLD HSP15W40 (--- GAL)

Recommendation

Resample at the next service interval to monitor.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the oil.

Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORM	IATION	method	limit/base	current	history 1	history 2
Sample Number		Client Info		WC0808244	WC0808242	
Sample Date		Client Info		26 Sep 2022	18 Oct 2021	
Machine Age	hrs	Client Info		3869	3614	
Oil Age	hrs	Client Info		255	235	
Oil Changed		Client Info		Changed	Changed	
Sample Status				NORMAL	NORMAL	
CONTAMINATION	٨	method	limit/base	current	history 1	history 2
Fuel		WC Method	>5	<1.0	<1.0	
Glycol		WC Method		NEG	NEG	
WEAR METALS		method	limit/base	current	history 1	history 2
Iron	ppm	ASTM D5185(m)	>90	31	22	
Chromium	ppm	ASTM D5185(m)		<1	<1	
Nickel	ppm	ASTM D5185(m)	>2	<1	<1	
Titanium	ppm	ASTM D5185(m)		<1	<1	
Silver	ppm	ASTM D5185(m)	>2	0	0	
Aluminum	ppm	ASTM D5185(m)		2	2	
Lead	ppm	ASTM D5185(m)	>40	11	7	
Copper	ppm	ASTM D5185(m)	>330	2	2	
Tin	ppm	ASTM D5185(m)	>15	<1	<1	
Antimony	ppm	ASTM D5185(m)		2	20	
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	history 1	history 2
ADDITIVES Boron	ppm	method ASTM D5185(m)	limit/base	current 118	history 1 316	history 2
	ppm ppm		limit/base			
Boron		ASTM D5185(m)	limit/base	118	316	
Boron Barium	ppm	ASTM D5185(m) ASTM D5185(m)	limit/base	118 0	316 0	
Boron Barium Molybdenum	ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	118 0 58	316 0 88	
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)	limit/base	118 0 58 <1	316 0 88 <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)	limit/base	118 0 58 <1 384	316 0 88 <1 499	
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m) ASTM D5185(m)		118 0 58 <1 384 2298	316 0 88 <1 499 1916	
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)		118 0 58 <1 384 2298 1237	316 0 88 <1 499 1916 1220	
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)	1700	118 0 58 <1 384 2298 1237 1447	316 0 88 <1 499 1916 1220 1407	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	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)	1700	118 0 58 <1 384 2298 1237 1447 3069	316 0 88 <1 499 1916 1220 1407 3061	
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) ASTM D5185(m)	1700	118 0 58 <1 384 2298 1237 1447 3069 <1	316 0 88 <1 499 1916 1220 1407 3061 <1	
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS	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)	1700 limit/base	118 0 58 <1 384 2298 1237 1447 3069 <1 current	316 0 88 <1 499 1916 1220 1407 3061 <1 history 1	 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon	ppm	ASTM D5185(m) ASTM D5185(m)	1700 limit/base	118 0 58 <1 384 2298 1237 1447 3069 <1 current 6	316 0 88 <1 499 1916 1220 1407 3061 <1 history 1 6	 history 2
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)	1700 limit/base >25	118 0 58 <1 384 2298 1237 1447 3069 <1 <i>current</i> 6 4	316 0 88 <1 499 1916 1220 1407 3061 <1 history 1 6 4	 history 2
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)	1700 1mit/base >25 >20	118 0 58 <1 384 2298 1237 1447 3069 <1 current 6 4 2	316 0 88 <1 499 1916 1220 1407 3061 <1 history 1 6 4 0	 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	1700 1imit/base >25 >20 Iimit/base	118 0 58 <1 384 2298 1237 1447 3069 <1 current 6 4 2 2	316 0 88 <1 499 1916 1220 1407 3061 <1 history 1 6 4 0 history 1 0.6	 history 2 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	1700 limit/base >25 >20 limit/base >6	118 0 58 <1 384 2298 1237 1447 3069 <1 <i>current</i> 6 4 2 2 <i>current</i>	316 0 88 <1 499 1916 1220 1407 3061 <1 history 1 6 4 0 history 1	 history 2 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m)	1700 1700 1imit/base >25 >20 1imit/base >6 >20	118 0 58 <1 384 2298 1237 1447 3069 <1 <i>current</i> 6 4 2 <i>current</i> 0.7 10.9	316 0 88 <1 499 1916 1220 1407 3061 <1 history 1 6 4 0 history 1 0.6 10.7	 history 2 history 2 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D5185(m) AS	1700 1700 100 225 >20 20 100 20 20 20 20 20 20 20 20 20 20 20 20	118 0 58 <1 384 2298 1237 1447 3069 <1 <i>current</i> 6 4 2 2 <i>current</i> 0.7 10.9 26.4	316 0 88 <1 499 1916 1220 1407 3061 <1 history 1 6 4 0 history 1 0.6 10.7 26.3	 history 2 history 2 history 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur Lithium CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185(m) ASTM D7844 [*] ASTM D7624 [*]	1700 1700 225 >20 1imit/base >20 20 30 30 1imit/base	118 0 58 <1 384 2298 1237 1447 3069 <1 <i>current</i> 6 4 2 2 <i>current</i> 0.7 10.9 26.4 <i>current</i>	316 0 88 <1 499 1916 1220 1407 3061 <1 history 1 6 4 0 history 1 0.6 10.7 26.3 history 1	 history 2 history 2 history 2



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Contact/Location: Monty Heatcout - 3RDMER