

OIL ANALYSIS REPORT

Sample Rating Trend



Area OKLAHOMA Machine Id 3592

Component Diesel Engine Fluid MYSTIK JT-8 SYN SUPER HD 15W50 (--- GA

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample.

Wear

All component wear rates are normal.

Contamination

Elevated aluminum (AI) and/or lead (Pb) and potassium (K) levels in your metals analysis are likely a result of solder flux release into the lubricant and is common on new equipment/components. There is no indication of any contamination in the oil.

Fluid Condition

The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

A L)										
Meg2023 Jun2023 Jun2023 Seg2023 Oct2023 Nevd023 Dec2023 Jun2024										
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2				
Sample Number		Client Info		WC0810712	WC0810709	WCMFA67294				
Sample Date		Client Info		05 Jan 2024	05 Dec 2023	08 Nov 2023				
Machine Age	hrs	Client Info		1700	1545	1396				
Oil Age	hrs	Client Info		1377	1297	1073				
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd				
Sample Status				NORMAL	NORMAL	NORMAL				
CONTAMINATION	Ν	method	limit/base	current	history1	history2				
Fuel		WC Method	>5	<1.0	<1.0	<1.0				
Water		WC Method	>0.2	NEG	NEG	NEG				
Glycol		WC Method		NEG	NEG	NEG				
WEAR METALS		method	limit/base	current	history1	history2				
Iron	ppm	ASTM D5185m	>100	58	47	45				
Chromium	ppm	ASTM D5185m	>20	6	5	5				
Nickel	ppm	ASTM D5185m	>4	0	0	0				
Titanium	ppm	ASTM D5185m		0	0	0				
Silver	ppm	ASTM D5185m	>3	0	0	0				
Aluminum	ppm	ASTM D5185m	>20	50	43	40				
Lead	ppm	ASTM D5185m	>40	0	0	0				
Copper	ppm	ASTM D5185m	>330	2	2	2				
Tin	ppm	ASTM D5185m	>15	0	0	<1				
Vanadium	ppm	ASTM D5185m		0	0	0				
Cadmium	ppm	ASTM D5185m		0	0	0				
ADDITIVES		method	limit/base	current	history1	history2				
Boron	ppm	ASTM D5185m		0	<1	3				
Barium	ppm	ASTM D5185m		0	0	0				
Molybdenum	nnm	AOTH DELOS		C1	FO					
Managana	ppin	ASTM D5185m		01	00	55				
Manganese	ppm	ASTM D5185m ASTM D5185m		0	<1	55 1				
Manganese Magnesium	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		0 992	<1 930	55 1 940				
Magnesium Calcium	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 992 1112	<1 930 1030	55 1 940 1025				
Manganese Magnesium Calcium Phosphorus	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 992 1112 1036	<1 930 1030 1004	55 1 940 1025 953				
Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 992 1112 1036 1263	<pre>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>></pre>	55 1 940 1025 953 1231				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m		0 992 1112 1036 1263 3279	<pre>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>></pre>	55 1 940 1025 953 1231 2864				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method	limit/base	0 992 1112 1036 1263 3279 current	<pre>>>> </pre> >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	55 1 940 1025 953 1231 2864 history2				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base >25	0 992 1112 1036 1263 3279 current 4	 50 <1 930 1030 1004 1231 3217 history1 4 	55 1 940 1025 953 1231 2864 history2 4				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 992 1112 1036 1263 3279 current 4 8	 50 <1 930 1030 1004 1231 3217 history1 4 8 	55 1 940 1025 953 1231 2864 history2 4 6				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	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	limit/base >25 >20	0 992 1112 1036 1263 3279 current 4 8 131	<pre>>>> </pre> >>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>>	55 1 940 1025 953 1231 2864 history2 4 6 104				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base	0 992 1112 1036 1263 3279 current 4 8 131 current	 50 <1 930 1030 1004 1231 3217 history1 4 8 110 history1 	55 1 940 1025 953 1231 2864 history2 4 6 104 history2				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	0 992 1112 1036 1263 3279 current 4 8 131 current 0.8	 50 <1 930 1030 1004 1231 3217 history1 4 8 110 history1 0.7 	55 1 940 1025 953 1231 2864 history2 4 6 104 history2 0.7				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m	limit/base >25 >20 limit/base >3 >20	6 1 0 992 1112 1036 1263 3279 current 4 8 131 current 0.8 9.4	 58 <1 930 1030 1004 1231 3217 history1 4 8 110 history1 0.7 8.9 	55 1 940 1025 953 1231 2864 history2 4 6 104 history2 0.7 9.0				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D78444 *ASTM D7624	limit/base >25 >20 limit/base >3 >20 >30	0 992 1112 1036 1263 3279 current 4 8 131 current 0.8 9.4 21.6	 50 <1 930 1030 1004 1231 3217 history1 4 8 110 history1 0.7 8.9 20.9 	55 1 940 1025 953 1231 2864 history2 4 6 104 history2 0.7 9.0 20.8				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D7844 *ASTM D7624 *ASTM D7415	limit/base >25 >20 limit/base >3 >20 >30 >30	0 992 1112 1036 1263 3279 current 4 8 131 current 0.8 9.4 21.6	 50 <1 930 1030 1004 1231 3217 history1 4 8 110 history1 0.7 8.9 20.9 history1 	55 1 940 1025 953 1231 2864 history2 4 6 104 history2 0.7 9.0 20.8 history2				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D78444 *ASTM D78444 *ASTM D7415 method *ASTM D7414	limit/base >25 >20 limit/base >3 >20 >30 limit/base >25	0 992 1112 1036 1263 3279 current 4 8 131 current 0.8 9.4 21.6 current 17.2	 50 <1 930 1030 1004 1231 3217 history1 4 8 110 history1 0.7 8.9 20.9 history1 16.6 	55 1 940 1025 953 1231 2864 history2 4 6 104 history2 0.7 9.0 20.8 history2 16.5				
Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation FLUID DEGRADA Oxidation Base Number (BN)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASIM D5185m ASIM D78185m ASIM D78144 *ASIM D7414 ASIM D78144	limit/base >25 >20 limit/base >3 >20 >30 >30 limit/base >25	0 992 1112 1036 1263 3279 current 4 8 131 current 0.8 9.4 21.6 current 17.2 7.9	 50 <1 930 1030 1004 1231 3217 history1 4 8 110 history1 0.7 8.9 20.9 history1 16.6 8.2 	55 1 940 1025 953 1231 2864 history2 4 6 104 history2 0.7 9.0 20.8 history2 16.5 8.3				



OIL ANALYSIS REPORT







VISUAL		method				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	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG
FLUID PROPERT	IES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	19.5	13.3	13.4	13.3
GRAPHS						

Ferrous Alloys

lead

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To discuss this sample report, contact Customer Service at 1-800-237-1369.

* - 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)

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Certificate L2367

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