

Area OKLAHOMA

# **OIL ANALYSIS REPORT**

Sample Rating Trend



Diesel Engine Fluid MYSTIK JT-8 SYN SUPER HD 15W40 (--- GAL)

## DIAGNOSIS

7269

#### A Recommendation

No corrective action is recommended at this time. Resample at the next service interval to monitor.

#### 🔺 Wear

Valve wear is indicated.

#### Contamination

There is no indication of any contamination in the oil.

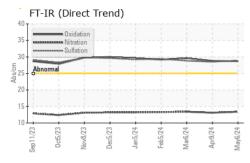
### Fluid Condition

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

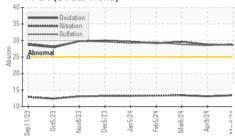
SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0929923	WC0929931	WC0899615
Sample Date		Client Info		06 May 2024	09 Apr 2024	06 Mar 2024
Machine Age	hrs	Client Info		5675	5533	5326
Oil Age	hrs	Client Info		5375	5233	5028
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				ABNORMAL	ABNORMAL	ABNORMAL
CONTAMINATION	٧	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	78	75	78
Chromium	ppm	ASTM D5185m	>20	3	2	2
Nickel	ppm	ASTM D5185m	>4	<u> </u>	<b>1</b> 0	<b>▲</b> 12
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	<1	<1	0
Aluminum	ppm	ASTM D5185m	>20	4	4	3
Lead	ppm	ASTM D5185m	>40	1	<1	<1
Copper	ppm	ASTM D5185m	>330	12	10	11
Tin	ppm	ASTM D5185m	>15	3	3	2
Vanadium	ppm	ASTM D5185m		<1	0	<1
Cadmium	ppm	ASTM D5185m		<1	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current	history1 3	history2 2
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	<1	3	2
Boron Barium	ppm	ASTM D5185m ASTM D5185m	limit/base	<1 0	3 0	2 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 0 48	3 0 45	2 0 43
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 0 48 2	3 0 45 2	2 0 43 1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 0 48 2 906	3 0 45 2 1008	2 0 43 1 962
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 0 48 2 906 1310	3 0 45 2 1008 1418	2 0 43 1 962 1448
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	limit/base	<1 0 48 2 906 1310 1127	3 0 45 2 1008 1418 1249	2 0 43 1 962 1448 1159
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 0 48 2 906 1310 1127 1365	3 0 45 2 1008 1418 1249 1507	2 0 43 1 962 1448 1159 1426
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	<1 0 48 2 906 1310 1127 1365 2897	3 0 45 2 1008 1418 1249 1507 3128	2 0 43 1 962 1448 1159 1426 3049
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS	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	<1 0 48 2 906 1310 1127 1365 2897 current	3 0 45 2 1008 1418 1249 1507 3128 history1	2 0 43 1 962 1448 1159 1426 3049 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m method ASTM D5185m	limit/base >25	<1 0 48 2 906 1310 1127 1365 2897 current 10	3 0 45 2 1008 1418 1249 1507 3128 history1 9	2 0 43 1 962 1448 1159 1426 3049 history2 9
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	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 ASTM D5185m	limit/base >25	<1 0 48 2 906 1310 1127 1365 2897 current 10 26	3 0 45 2 1008 1418 1249 1507 3128 history1 9 25	2 0 43 1 962 1448 1159 1426 3049 history2 9 24
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20	<1 0 48 2 906 1310 1127 1365 2897 <u>current</u> 10 26 10	3 0 45 2 1008 1418 1249 1507 3128 history1 9 25 6	2 0 43 1 962 1448 1159 1426 3049 history2 9 24 6
Boron Barium Molybdenum 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 >3	<1 0 48 2 906 1310 1127 1365 2897 current 10 26 10 current	3 0 45 2 1008 1418 1249 1507 3128 history1 9 25 6 history1	2 0 43 1 962 1448 1159 1426 3049 history2 9 24 6
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 limit/base >3	<1 0 48 2 906 1310 1127 1365 2897 current 10 26 10 26 10 current 1.2	3 0 45 2 1008 1418 1249 1507 3128 history1 9 25 6 history1 1.2	2 0 43 1 962 1448 1159 1426 3049 history2 9 24 6 history2 1.2
Boron Barium Molybdenum 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 ASTM D5185m	limit/base >25 >20 limit/base >3 >20	<1 0 48 2 906 1310 1127 1365 2897 current 10 26 10 current 1.2 1.2 13.4	3 0 45 2 1008 1418 1249 1507 3128 history1 9 25 6 5 6 history1 1.2 1.2	2 0 43 1 962 1448 1159 1426 3049 history2 9 24 6 history2 1.2 1.2 13.4
Boron Barium Molybdenum 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 D5185m	limit/base >25 >20 limit/base >3 >20 >3 >20	<1 0 48 2 906 1310 1127 1365 2897 current 10 26 10 current 1.2 13.4 28.9	3 0 45 2 1008 1418 1249 1507 3128 history1 9 25 6 history1 1.2 1.2 13.1 28.5	2 0 43 1 962 1448 1159 1426 3049 history2 9 24 6 history2 1.2 1.2 1.3.4 28.8
Boron Barium Molybdenum 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 D7844 *ASTM D7844 *ASTM D7844	limit/base >25 >20 limit/base >3 >20 >30 limit/base	<1 0 48 2 906 1310 1127 1365 2897 current 10 26 10 current 1.2 13.4 28.9 current	3 0 45 2 1008 1418 1249 1507 3128 history1 9 25 6 history1 1.2 13.1 28.5 history1	2 0 43 1 962 1448 1159 1426 3049 history2 9 24 6 history2 1.2 1.2 1.3.4 28.8 history2

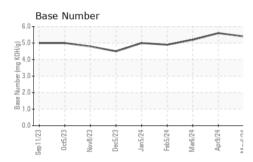


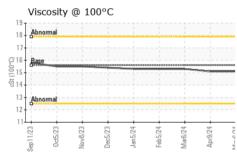
# **OIL ANALYSIS REPORT**



## FT-IR (Direct Trend)

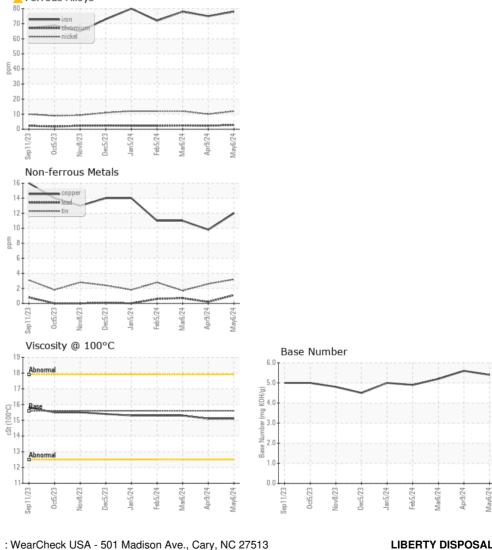






VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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	15.6	15.1	15.1	15.3

GRAPHS Ferrous Alloys



: 13 May 2024

: 15 May 2024

# LIBERTY DISPOSAL

6401 S EASTERN AVE OKLAHOMA CITY, OK US 73149 Contact: M Rutherford M.Rutherford@ldi89.com T: F:



Unique Number : 11029522 Diagnosed : 15 May 2024 - Sean Felton Test Package : FLEET Certificate 12367 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)

Received

Tested

Report Id: SEAOKL [WUSCAR] 06178196 (Generated: 05/15/2024 17:10:59) Rev: 1

Laboratory

Sample No.

Lab Number : 06178196

: WC0929923

Contact/Location: M Rutherford - SEAOKL

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