

# **OIL ANALYSIS REPORT**

# Area **Pillen Family Farms** MILTK35

Diesel Engine

Fluid MOBIL DELVAC 1300 SUPER 15W40 (--- GAL)

### DIAGNOSIS

#### Recommendation

Resample at the next service interval to monitor.

## Wear

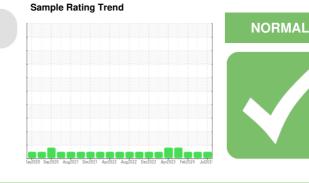
All component wear rates are normal.

#### Contamination

There is no indication of any contamination in the oil.

## Fluid Condition

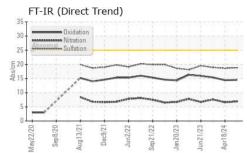
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

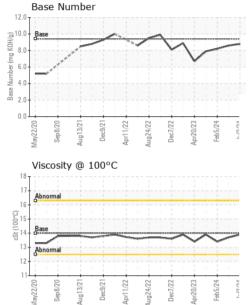


SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0006869	SBP0006797	SBP0005324
Sample Date		Client Info		02 Jul 2024	18 Apr 2024	05 Feb 2024
Machine Age	hrs	Client Info		350	350	350
Oil Age	hrs	Client Info		0	0	350
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N	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	>80	6	8	11
Chromium	ppm	ASTM D5185m	>5	<1	0	1
Nickel	ppm	ASTM D5185m	>2	0	0	<1
Titanium	ppm	ASTM D5185m		0	0	<1
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m		4	5	8
Lead	ppm	ASTM D5185m	>30	0	<1	0
Copper	ppm	ASTM D5185m	>150	9	12	52
Tin	ppm	ASTM D5185m	>5	<1	1	<1
Vanadium	ppm	ASTM D5185m		0	0	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	mag	method ASTM D5185m	limit/base		history1 0	
	ppm ppm	ASTM D5185m		current 3 0		history2 2 0
Boron Barium	ppm	ASTM D5185m	0	3	0	2
Boron	ppm ppm	ASTM D5185m ASTM D5185m	0	3 0	0	2 0
Boron Barium Molybdenum	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	0	3 0 57	0 0 64	2 0 66
Boron Barium Molybdenum Manganese	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	3 0 57 0	0 0 64 0	2 0 66 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	3 0 57 0 957	0 0 64 0 1084	2 0 66 <1 1038
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	3 0 57 0 957 1094	0 0 64 0 1084 1213	2 0 66 <1 1038 1130
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	0 0 0	3 0 57 0 957 1094 1032	0 0 64 0 1084 1213 1138	2 0 66 <1 1038 1130 1103
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0	3 0 57 0 957 1094 1032 1276	0 0 64 0 1084 1213 1138 1425	2 0 66 <1 1038 1130 1103 1362
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur	ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	0 0 0 0	3 0 57 0 957 1094 1032 1276 3434	0 0 64 0 1084 1213 1138 1425 3821	2 0 66 <1 1038 1130 1103 1362 3101
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	0 0 0 0 Imit/base	3 0 57 0 957 1094 1032 1276 3434 current	0 0 64 0 1084 1213 1138 1425 3821 history1	2 0 66 <1 1038 1130 1103 1362 3101 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m <b>method</b>	0 0 0 0 Imit/base	3 0 57 0 957 1094 1032 1276 3434 <i>current</i> 6	0 0 64 0 1084 1213 1138 1425 3821 history1 7	2 0 66 <1 1038 1130 1103 1362 3101 history2 8
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	0 0 0 0 imit/base	3 0 57 0 957 1094 1032 1276 3434 <u>current</u> 6 2	0 0 64 0 1084 1213 1138 1425 3821 history1 7 2	2 0 66 <1 1038 1130 1103 1362 3101 history2 8 3 3
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	0 0 0 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 0 57 0 957 1094 1032 1276 3434 <u>current</u> 6 2 3	0 0 64 0 1084 1213 1138 1425 3821 history1 7 2 2 2	2 0 66 <1 1038 1130 1103 1362 3101 history2 8 3 3 5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	0 0 0 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 0 57 0 957 1094 1032 1276 3434 current 6 2 3 3 current	0 0 64 0 1084 1213 1138 1425 3821 history1 7 2 2 2 kistory1	2 0 66 <1 1038 1130 1103 1362 3101 history2 8 3 5 5 history2
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	0 0 0 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1	3 0 57 0 957 1094 1032 1276 3434 <i>current</i> 6 2 3 3 <i>current</i> 0.2	0 0 64 0 1084 1213 1138 1425 3821 history1 7 2 2 2 history1 0.2	2 0 66 <1 1038 1130 1103 1362 3101 history2 8 3 5 5 history2 0.2
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	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0 57 0 957 1094 1032 1276 3434 <i>current</i> 6 2 3 3 <i>current</i> 0.2 6.9	0 0 64 0 1084 1213 1138 1425 3821 history1 7 2 2 2 history1 0.2 6.6	2 0 66 <1 1038 1130 1103 1362 3101 history2 8 3 5 history2 0.2 7.6
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	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0 57 0 957 1094 1032 1276 3434 <b>current</b> 6 2 3 3 <b>current</b> 0.2 6.9 18.8	0 0 64 0 1084 1213 1138 1425 3821 history1 7 2 2 2 <u>history1</u> 0.2 6.6 18.6	2 0 66 <1 1038 1130 1103 1362 3101 <b>history2</b> 8 3 5 <b>history2</b> 0.2 7.6 18.9
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 D7624	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3 0 57 0 957 1094 1032 1276 3434 <i>current</i> 6 2 3 3 <i>current</i> 0.2 6.9 18.8	0 0 64 0 1084 1213 1138 1425 3821 history1 7 2 2 2 history1 0.2 6.6 18.6	2 0 66 <1 1038 1130 1103 1362 3101 history2 8 3 5 history2 0.2 7.6 18.9 history2



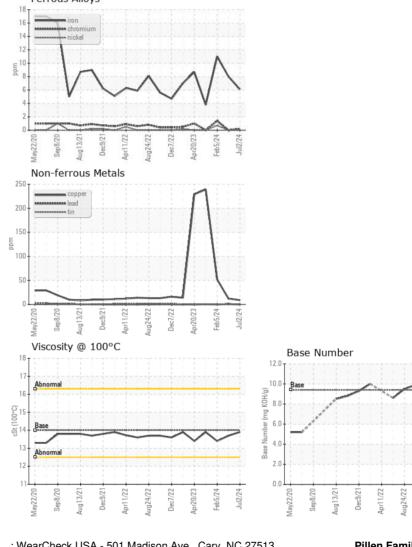
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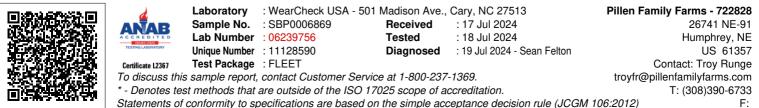




VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	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	14	13.9	13.7	13.4
CDADUS						

Ferrous Alloys





Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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Submitted By: JUSTIN HANSON

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