

# **OIL ANALYSIS REPORT**

# Pillen Family Farms MILTK46

Component **Diesel Engine** 

**DIESEL ENGINE OIL SAE 40 (--- GAL)** 

Sample Rating Trend



### Recommendation

Resample at the next service interval to monitor. Please specify the component make and model with your next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

### Wear

All component wear rates are normal.

### Contamination

There is no indication of any contamination in the

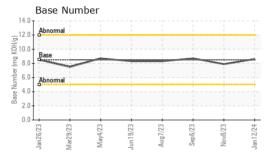
### **Fluid Condition**

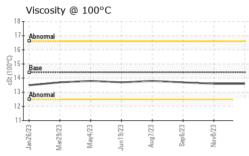
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0006197	SBP0006190	SBP0002419
Sample Date		Client Info		12 Jan 2024	08 Nov 2023	06 Sep 2023
Machine Age	hrs	Client Info		350	0	0
Oil Age	hrs	Client Info		350	0	0
Oil Changed		Client Info		Not Changd	N/A	N/A
Sample Status				NORMAL	NORMAL	NORMAL
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	6	8	5
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	<1
Aluminum	ppm			2	3	5
Lead	ppm	ASTM D5185m	>40	1	<1	0
Copper	ppm	ASTM D5185m		· <1	<1	<1
Tin	ppm	ASTM D5185m		1	<1	<1
Vanadium	ppm	ASTM D5185m	>10	0	<1	0
variadium	ppiii	AO IIVI DO IOOIII			\ I	U
Cadmium	nnm	ASTM D5185m		-	0	0
Cadmium	ppm	ASTM D5185m	limit/hasa	0	0 history1	0 history?
ADDITIVES		method	limit/base	<b>o</b> current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	250	o current	history1	history2
ADDITIVES Boron Barium	ppm ppm	method ASTM D5185m ASTM D5185m	250 10	0 current	history1 2 0	history2 3 0
ADDITIVES Boron Barium Molybdenum	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m	250	0 current 1 0 60	history1 2 0 52	history2 3 0 61
ADDITIVES  Boron Barium Molybdenum Manganese	ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	0 current 1 0 60 <1	history1 2 0 52 0	history2 3 0 61 <1
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium	ppm ppm ppm ppm	method ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	0 current 1 0 60 <1 903	history1 2 0 52 0 1037	history2 3 0 61 <1 1015
ADDITIVES Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	method  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	250 10 100 450 3000	0 current 1 0 60 <1 903 1011	history1  2  0 52  0 1037 943	history2  3  0 61 <1 1015 1115
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus	ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	250 10 100 450 3000 1150	0 current 1 0 60 <1 903 1011 1012	history1  2  0  52  0 1037 943 854	history2  3  0 61 <1 1015 1115 1131
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc	ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150	0 current  1 0 60 <1 903 1011 1012 1157	history1  2  0 52  0 1037  943 854 1107	history2  3  0 61 <1 1015 1115 1131 1374
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	250 10 100 450 3000 1150 1350 4250	0 current  1 0 60 <1 903 1011 1012 1157 2855	history1  2  0 52  0 1037 943 854 1107 2490	history2  3  0 61 <1 1015 1115 1131 1374 3379
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base	0 current  1 0 60 <1 903 1011 1012 1157 2855 current	history1  2  0  52  0 1037  943  854  1107  2490  history1	history2  3  0 61 <1 1015 1115 1131 1374 3379 history2
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25	0 current 1 0 60 <1 903 1011 1012 1157 2855 current 3	history1  2  0  52  0 1037  943  854  1107  2490  history1  4	history2  3  0 61 <1 1015 1115 1131 1374 3379 history2 4
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium	ppm ppm ppm ppm ppm ppm ppm ppm ppm	method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216	0 current 1 0 60 <1 903 1011 1012 1157 2855 current 3 2	history1  2  0 52  0 1037 943 854 1107 2490 history1 4	history2  3 0 61 <1 1015 1115 1131 1374 3379 history2 4 2
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium	ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20	0 current  1 0 60 <1 903 1011 1012 1157 2855 current 3 2 2	history1  2  0 52  0 1037 943 854 1107 2490 history1  4 2 20	history2  3  0 61 <1 1015 1115 1131 1374 3379 history2  4 2 16
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	method  ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base	0 current  1 0 60 <1 903 1011 1012 1157 2855 current  3 2 2 current	history1  2  0  52  0 1037  943  854  1107  2490  history1  4  2  20  history1	history2  3  0 61 <1 1015 1115 1131 1374 3379 history2  4 2 16 history2
ADDITIVES  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	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base	0 current  1 0 60 <1 903 1011 1012 1157 2855 current  3 2 2 current  0.4	history1  2  0 52  0 1037  943 854  1107 2490  history1  4  2 20  history1  0.5	history2  3  0 61 <1 1015 1115 1131 1374 3379 history2 4 2 16 history2 0.3
ADDITIVES  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	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base	0 current 1 0 60 <1 903 1011 1012 1157 2855 current 3 2 2 current 0.4 6.6	history1  2  0 52  0 1037 943 854 1107 2490 history1 4 2 20 history1 0.5 7.4	history2  3  0 61 <1 1015 1115 1131 1374 3379 history2 4 2 16 history2 0.3 6.5
ADDITIVES  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	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base	0 current  1 0 60 <1 903 1011 1012 1157 2855 current  3 2 2 current  0.4	history1  2  0 52  0 1037  943 854  1107 2490  history1  4  2 20  history1  0.5	history2  3  0 61 <1 1015 1115 1131 1374 3379 history2 4 2 16 history2 0.3
ADDITIVES  Boron  Barium  Molybdenum  Manganese  Magnesium  Calcium  Phosphorus  Zinc  Sulfur  CONTAMINANTS  Silicon  Sodium  Potassium  INFRA-RED  Soot %  Nitration	ppm	method  ASTM D5185m  method  ASTM D5185m ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m  ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base	0 current 1 0 60 <1 903 1011 1012 1157 2855 current 3 2 2 current 0.4 6.6	history1  2  0 52  0 1037 943 854 1107 2490 history1 4 2 20 history1 0.5 7.4	history2  3  0 61 <1 1015 1115 1131 1374 3379 history2 4 2 16 history2 0.3 6.5
ADDITIVES  Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot % Nitration Sulfation	ppm	method  ASTM D5185m  METHOD  *ASTM D5185m ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D5185m  *ASTM D7844  *ASTM D7624  *ASTM D7415	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base >3 >20 >30	0 current  1 0 60 <1 903 1011 1012 1157 2855 current  3 2 2 current  0.4 6.6 19.0	history1  2  0  52  0  1037  943  854  1107  2490  history1  4  2  20  history1  0.5  7.4  19.5	history2  3  0 61 <1 1015 1115 1131 1374 3379 history2 4 2 16 history2 0.3 6.5 18.6



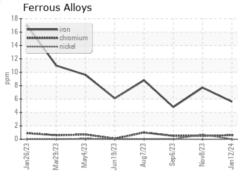
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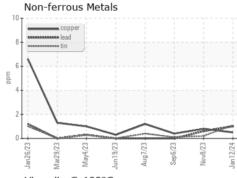


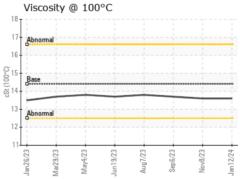


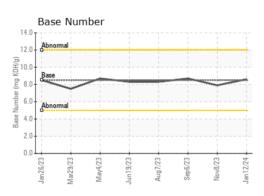
VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*Visual	NONE	NONE	NONE	NONE
Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
Odor	scalar	*Visual	NORML	NORML	NORML	NORML
<b>Emulsified Water</b>	scalar	*Visual	>0.2	NEG	NEG	NEG
Free Water	scalar	*Visual		NEG	NEG	NEG

FLUID PROPERTIES		metnoa	ilmit/base	current	nistory i	nistory2
Visc @ 100°C	cSt	ASTM D445	14.4	13.6	13.6	13.7













Certificate L2367

Laboratory Sample No.

Lab Number Test Package : FLEET

: SBP0006197 : 06077389 Unique Number : 10859480

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 Recieved : 01 Feb 2024 Diagnosed : 02 Feb 2024

Diagnostician : Wes Davis

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)

Pillen Family Farms - 722828

26741 NE-91 Humphrey, NE US 61357 Contact: Troy Runge

troyfr@pillenfamilyfarms.com

T: (308)390-6733