

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id

FEEDTK19

Component Diesel Engine Fluid DIESEL ENGINE OIL SAE 40 (--- GAL)

DIAGNOSIS

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

Metal levels are typical for a new component breaking in.

Contamination

There is no indication of any contamination in the oil.

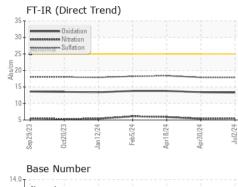
Fluid Condition

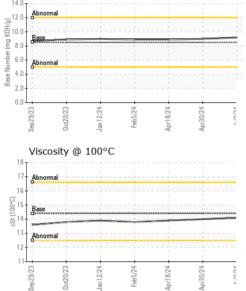
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

SAMPLE INFORM	IATION	method				history2
Sample Number		Client Info		SBP0006868	SBP0006885	SBP0006795
Sample Date		Client Info		02 Jul 2024	30 Apr 2024	18 Apr 2024
Machine Age	hrs	Client Info		350	350	350
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Not Changd	Not Changd	Not Changd
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATION	N.	method	limit/base	current	history1	history2
Fuel	N	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	5	5	8
Chromium	ppm	ASTM D5185m	>20	0	<1	0
Nickel	ppm	ASTM D5185m	>4	0	<1	0
Titanium	ppm	ASTM D5185m		0	<1	0
Silver	ppm	ASTM D5185m	>3	0	<1	0
Aluminum	ppm	ASTM D5185m	>20	<1	2	0
Lead	ppm	ASTM D5185m	>40	0	2	2
Copper	ppm	ASTM D5185m	>330	<1	<1	0
Tin	ppm	ASTM D5185m	>15	0	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	<1	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base 250	current 10	history1 4	history2 0
	ppm ppm		250			· · · · · ·
Boron		ASTM D5185m	250	10	4	0
Boron Barium	ppm	ASTM D5185m ASTM D5185m	250 10	10 0	4	0 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	250 10	10 0 56	4 0 57	0 0 62
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100	10 0 56 0	4 0 57 <1	0 0 62 0
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450	10 0 56 0 942	4 0 57 <1 933	0 0 62 0 1067
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	250 10 100 450 3000	10 0 56 0 942 1059	4 0 57 <1 933 1082	0 0 62 0 1067 1234
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	250 10 100 450 3000 1150 1350	10 0 56 0 942 1059 1041	4 0 57 <1 933 1082 1028	0 0 62 0 1067 1234 1139
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	250 10 100 450 3000 1150 1350	10 0 56 0 942 1059 1041 1271	4 0 57 <1 933 1082 1028 1221	0 0 62 0 1067 1234 1139 1434
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	250 10 100 450 3000 1150 1350 4250	10 0 56 0 942 1059 1041 1271 3670	4 0 57 <1 933 1082 1028 1221 3578	0 0 62 0 1067 1234 1139 1434 4068
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	250 10 100 450 3000 1150 1350 4250 limit/base	10 0 56 0 942 1059 1041 1271 3670 current	4 0 57 <1 933 1082 1028 1028 1221 3578 history1	0 0 62 0 1067 1234 1139 1434 4068 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 method	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216	10 0 56 0 942 1059 1041 1271 3670 current 3	4 0 57 <1 933 1082 1028 1221 3578 history1 4	0 0 62 0 1067 1234 1139 1434 4068 history2 4
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 method ASTM D5185m	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216	10 0 56 0 942 1059 1041 1271 3670 <u>current</u> 3 -	4 0 57 <1 933 1082 1028 1221 3578 history1 4 <1	0 0 62 0 1067 1234 1139 1434 4068 history2 4 <1
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	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20	10 0 56 0 942 1059 1041 1271 3670 current 3 <1 1 current	4 0 57 <1 933 1082 1028 1221 3578 history1 4 < 2	0 0 62 0 1067 1234 1139 1434 4068 history2 4 <1 <1
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	250 10 100 450 3000 1150 1350 4250 limit/base >25 >216 >20 limit/base	10 0 56 0 942 1059 1041 1271 3670 current 3 <1 1 1 current 0.3	4 0 57 <1 933 1082 1028 1221 3578 history1 4 <1 2 history1 0.3	0 0 62 0 1067 1234 1139 1434 4068 history2 4 <1 <1 <1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium INFRA-RED Soot %	ppm	ASTM D5185m ASTM D5185m	250 10 100 450 3000 1150 1350 4250 kimit/base >25 >216 >216 >20 kimit/base >3 >20	10 0 56 0 942 1059 1041 1271 3670 current 3 <1 1 current	4 0 57 <1 933 1082 1028 1221 3578 history1 4 <1 2 history1	0 0 62 0 1067 1234 1139 1434 4068 history2 4 <1 <1 <1 <1 history2 0.4
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	250 10 100 450 3000 1150 1350 4250 kimit/base >25 >216 >216 >20 kimit/base >3 >20	10 0 56 0 942 1059 1041 1271 3670 current 3 <1 1 current 0.3 5.5	4 0 57 <1 933 1082 1028 1221 3578 history1 4 <1 2 history1 0.3 5.4	0 0 62 0 1067 1234 1139 1434 4068 history2 4 <1 <1 <1 history2 0.4 5.9
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 *ASTM D7415	250 10 100 450 3000 1150 1350 4250 iimit/base >25 >216 >216 >20 iimit/base >3 >20 >30	10 0 56 0 942 1059 1041 1271 3670 current 3 <1 1 current 0.3 5.5 17.9 current	4 0 57 <1 933 1082 1028 1221 3578 history1 4 <1 2 history1 0.3 5.4 17.9 history1	0 0 62 0 1067 1234 1139 1434 4068 history2 4 <1 <1 <1 history2 0.4 5.9 18.4 history2
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	250 10 100 450 3000 1150 1350 4250 imit/base >25 >216 >20 imit/base >3 >20	10 0 56 0 942 1059 1041 1271 3670 current 3 <1 1 1 current 0.3 5.5 17.9	4 0 57 <1 933 1082 1028 1221 3578 history1 4 <1 2 history1 0.3 5.4 17.9	0 0 62 0 1067 1234 1139 1434 4068 history2 4 <1 <1 <1 history2 0.4 5.9 18.4



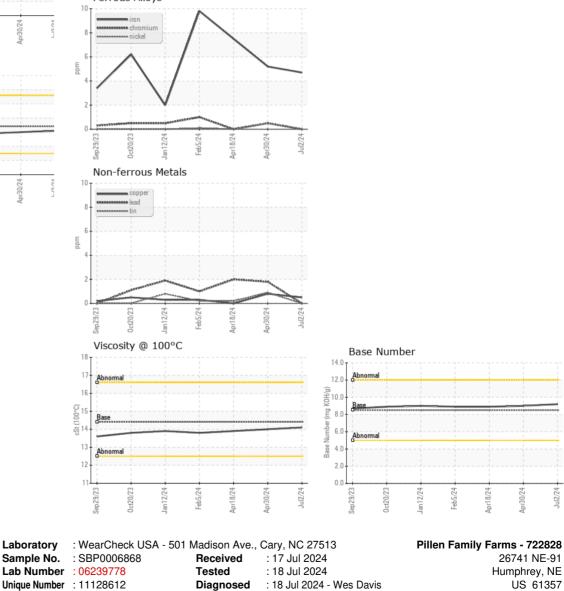
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VISUAL		method	limit/base	current	history1	history2
White Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Yellow Metal	scalar	*Visual	NONE	NONE	NONE	NONE
Precipitate	scalar	*Visual	NONE	NONE	NONE	NONE
Silt	scalar	*Visual	NONE	NONE	NONE	NONE
Debris	scalar	*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	14.4	14.1	14.0	13.9







* - Denotes test methods that are outside of the ISO 17025 scope of accreditation.

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

Test Package : FLEET

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

Report Id: PILHUM [WUSCAR] 06239778 (Generated: 07/18/2024 15:34:30) Rev: 1

Certificate 12367

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