

OIL ANALYSIS REPORT

Sample Rating Trend



Machine Id 021-0111

Component Diesel Engine Fluid SCHAEFFER SUPREME 7000 (--- GAL)

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

There is no indication of any contamination in the oil.

Fluid Condition

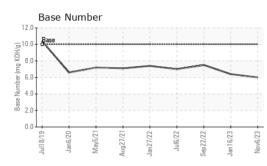
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

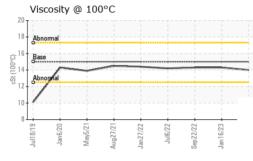


SAMPLE INFORM	IATION	method	limit/base	current	history1	history2
Sample Number		Client Info		WC0868359	WC0750803	WC0698166
Sample Date		Client Info		06 Nov 2023	16 Jan 2023	22 Sep 2022
Machine Age	hrs	Client Info		1273	976	765
Oil Age	hrs	Client Info		0	0	0
Oil Changed		Client Info		Changed	Changed	Changed
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	>100	12	8	7
Chromium	ppm	ASTM D5185m	>20	<1	<1	<1
Nickel	ppm	ASTM D5185m	>4	0	0	0
Titanium	ppm	ASTM D5185m		<1	0	0
Silver	ppm	ASTM D5185m	>3	0	0	0
Aluminum	ppm	ASTM D5185m	>20	4	4	4
Lead	ppm	ASTM D5185m	>40	<1	<1	0
Copper	ppm	ASTM D5185m	>330	<1	<1	<1
Tin	ppm	ASTM D5185m	>15	0	<1	0
Vanadium	ppm	ASTM D5185m		0	0	<1
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	method ASTM D5185m	limit/base	current 75	history1 91	history2 79
	ppm ppm		limit/base			
Boron		ASTM D5185m	limit/base	75	91	79
Boron Barium	ppm	ASTM D5185m ASTM D5185m		75 0	91 <1	79 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m		75 0 72	91 <1 77	79 0 76
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50	75 0 72 <1	91 <1 77 <1	79 0 76 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 1000	75 0 72 <1 20	91 <1 77 <1 13	79 0 76 <1 10
Boron Barium Molybdenum Manganese Magnesium Calcium	ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	50 1000 1400	75 0 72 <1 20 2105	91 <1 77 <1 13 2227	79 0 76 <1 10 2317
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	50 1000 1400 985 1060	75 0 72 <1 20 2105 975	91 <1 77 <1 13 2227 975	79 0 76 <1 10 2317 1037
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	50 1000 1400 985 1060	75 0 72 <1 20 2105 975 1277	91 <1 77 <1 13 2227 975 1218	79 0 76 <1 10 2317 1037 1240
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	50 1000 1400 985 1060 4000	75 0 72 <1 20 2105 975 1277 4964	91 <1 77 <1 13 2227 975 1218 5882	79 0 76 <1 10 2317 1037 1240 5781
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	50 1000 1400 985 1060 4000	75 0 72 <1 20 2105 975 1277 4964 current	91 <1 77 <1 13 2227 975 1218 5882 history1	79 0 76 <1 10 2317 1037 1240 5781 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 ASTM D5185m	50 1000 1400 985 1060 4000 limit/base >25	75 0 72 <1 20 2105 975 1277 4964 <u>current</u> 12	91 <1 77 <1 13 2227 975 1218 5882 history1 6	79 0 76 <1 10 2317 1037 1240 5781 history2 17
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	50 1000 1400 985 1060 4000 limit/base >25	75 0 72 <1 20 2105 975 1277 4964 current 12 3	91 <1 77 <1 13 2227 975 1218 5882 history1 6 1	79 0 76 <1 10 2317 1037 1240 5781 history2 17 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	50 1000 1400 985 1060 4000 limit/base >25 >20	75 0 72 <1 20 2105 975 1277 4964 current 12 3 <1	91 <1 77 <1 13 2227 975 1218 5882 history1 6 1 <1	79 0 76 <1 10 2317 1037 1240 5781 history2 17 1 2
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	ASTM D5185m ASTM D5185m	50 1000 1400 985 1060 4000 limit/base >25 >20 limit/base	75 0 72 <1 20 2105 975 1277 4964 <i>current</i> 12 3 <1 <i>current</i>	91 <1 77 <1 13 2227 975 1218 5882 history1 6 1 <1 <1 <1	79 0 76 <1 10 2317 1037 1240 5781 history2 17 1 2 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	50 50 1400 985 1060 4000 limit/base >25 >20 limit/base >3 >20	75 0 72 <1 20 2105 975 1277 4964 <i>current</i> 12 3 <1 <i>current</i>	91 <1 77 <1 13 2227 975 1218 5882 history1 6 1 <1 <1 <1 history1 0.2	79 0 76 <1 10 2317 1037 1240 5781 history2 17 1 2 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	50 50 1400 985 1060 4000 limit/base >25 >20 limit/base >3 >20	75 0 72 <1 20 2105 975 1277 4964 <i>current</i> 12 3 <1 2 0.3 10.3	91 <1 777 <1 13 2227 975 1218 5882 history1 6 1 <1 <1 kistory1 0.2 9.4	79 0 76 <1 10 2317 1037 1240 5781 history2 17 17 1 2 history2 0.2 10.0
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	50 50 1400 985 1060 4000 Iimit/base >25 20 Iimit/base >3 >20 >30	75 0 72 <1 20 2105 975 1277 4964 <u>current</u> 12 3 <1 2 0.3 (1) 0.3 10.3 19.1	91 <1 77 <1 13 2227 975 1218 5882 history1 6 1 <1 <1 history1 0.2 9.4 18.4 history1	79 0 76 <1 10 2317 1037 1240 5781 history2 17 1 2 history2 0.2 10.0 19.8 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 D7844 *ASTM D7844 *ASTM D7844	50 1000 1400 985 1060 4000 limit/base >25 20 limit/base >3 >20 >3	75 0 72 <1 20 2105 975 1277 4964 <i>current</i> 12 3 <1 <i>current</i> 0.3 10.3 19.1	91 <1 77 <1 13 2227 975 1218 5882 history1 6 1 <1 <1 <1 history1 0.2 9.4 18.4	79 0 76 <1 10 2317 1037 1240 5781 history2 17 1 2 17 1 2 history2 0.2 10.0 19.8



OIL ANALYSIS REPORT





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	TIES	method	limit/base	current	history1	history2
Visc @ 100°C	cSt	ASTM D445	15	14.0	14.3	14.3
GRAPHS						

Ferrous Alloys 50 40 icke 30 20 10 n Jul18/19 lan6/20 lul6/22 Mav5/71 /Ug27/21 an27/22 ep22/22 v6/73 Non-ferrous Metals 12 lead 10 4 2 0 Aug27/21 v6/23 n22/2 Jul18/1 Viscosity @ 100°C Base Number 19 12.0 18 Abr 10.0 Base Number (mg KOH/g) 16 8 (() 15 001 Ba 6.0 ²उँ 13 At

4.0 2 (

0.0

lan6/20 -May5/21.

Nov6/23 -

: 21 Nov 2023

: 22 Nov 2023



Test Package : CONST (Additional Tests: TBN) Certificate L2367 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)

Aug27/21 Jan27/22 lul6/22

: WearCheck USA - 501 Madison Ave., Cary, NC 27513

Received

Diagnosed

Sep 22/22 Jan 16/23

Diagnostician : Wes Davis

10

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Unique Number : 10753601

Laboratory

Sample No.

Lab Number

Jul18/19 Jan6/20 Mav5/71

: WC0868359

: 06014457

Jan27/22

Aug27/21

Sep 22/22 Jan 16/23 Nov6/23

1.16/27

SHIMMICK CONSTRUCTION

5535 TRAILHEAD DRIVE

Contact: DANIEL LISELLA

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CHATTANOOGA, TN

US 37415

Т:

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