

OIL ANALYSIS REPORT

Sample Rating Trend





Area CONSTRUCTORS, INC Machine Id 025065 Component

Diesel Engine Fluid NOT GIVEN (--- 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.

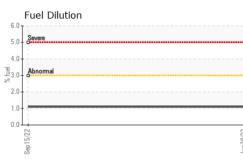
Fluid Condition

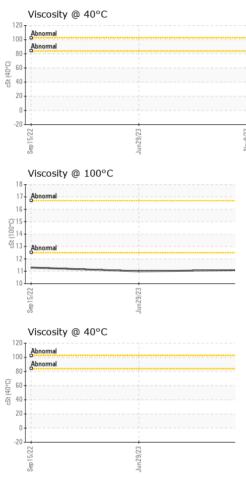
The BN result indicates that there is suitable alkalinity remaining in the oil. The condition of the oil is suitable for further service.

				Jun2023 Nov20		
SAMPLE INFORM	ATION	method	limit/base	current	history1	history2
Sample Number		Client Info		SBP0004946	SBP0000698	SBP0001369
Sample Date		Client Info		09 Nov 2023	29 Jun 2023	15 Sep 2022
Machine Age	hrs	Client Info		8820	8309	7802
Oil Age	hrs	Client Info		511	507	490
Oil Changed		Client Info		Changed	Changed	Changed
Sample Status				NORMAL	NORMAL	NORMAL
CONTAMINATIO	N	method	limit/base	current	history1	history2
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	>120	4	9	11
Chromium	ppm	ASTM D5185m	>20	0	0	<1
Nickel	ppm	ASTM D5185m	>5	<1	0	<1
Titanium	ppm	ASTM D5185m		0	0	0
Silver	ppm	ASTM D5185m	>2	0	0	0
Aluminum	ppm	ASTM D5185m	>20	2	<1	3
Lead	ppm	ASTM D5185m	>40	1	<1	3
Copper	ppm	ASTM D5185m	>330	1	5	4
Tin	ppm	ASTM D5185m	>15	<1	<1	<1
Vanadium	ppm	ASTM D5185m		0	<1	0
Cadmium	ppm	ASTM D5185m		0	0	0
ADDITIVES		method	limit/base	current	history1	history2
ADDITIVES Boron	ppm	ASTM D5185m	limit/base	current 0	2	30
	ppm ppm		limit/base			
Boron Barium		ASTM D5185m	limit/base	0	2	30
Boron Barium Molybdenum Manganese	ppm	ASTM D5185m ASTM D5185m	limit/base	0 0	2 0	30 0
Boron Barium Molybdenum	ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 54	2 0 54	30 0 26
Boron Barium Molybdenum Manganese	ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 54 <1	2 0 54 <1	30 0 26 <1
Boron Barium Molybdenum Manganese Magnesium	ppm ppm ppm ppm	ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m ASTM D5185m	limit/base	0 0 54 <1 900	2 0 54 <1 919	30 0 26 <1 523
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	0 0 54 <1 900 1048	2 0 54 <1 919 1188	30 0 26 <1 523 1529
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	0 0 54 <1 900 1048 994	2 0 54 <1 919 1188 980	30 0 26 <1 523 1529 697
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	limit/base	0 0 54 <1 900 1048 994 1172	2 0 54 <1 919 1188 980 1195	30 0 26 <1 523 1529 697 830
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 ASTM D5185m		0 0 54 <1 900 1048 994 1172 2694	2 0 54 <1 919 1188 980 1195 3595	30 0 26 <1 523 1529 697 830 2529
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	0 0 54 <1 900 1048 994 1172 2694 current	2 0 54 <1 919 1188 980 1195 3595 history1	30 0 26 <1 523 1529 697 830 2529 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon	ppm ppm 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	limit/base >25	0 0 54 <1 900 1048 994 1172 2694 <u>current</u> 3 1 0	2 0 54 <1 919 1188 980 1195 3595 history1 4	30 0 26 <1 523 1529 697 830 2529 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	limit/base >25 >20	0 0 54 <1 900 1048 994 1172 2694 current 3 1	2 0 54 <1 919 1188 980 1195 3595 history1 4 6	30 0 26 <1 523 1529 697 830 2529 history2 4 4
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20	0 0 54 <1 900 1048 994 1172 2694 <u>current</u> 3 1 0	2 0 54 <1 919 1188 980 1195 3595 history1 4 6 1	30 0 26 <1 523 1529 697 830 2529 history2 4 4 4 2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >3.0	0 0 54 <1 900 1048 994 1172 2694 current 3 1 0 0 <1.0	2 0 54 <1 919 1188 980 1195 3595 history1 4 6 1 1.1	30 0 26 <1 523 1529 697 830 2529 history2 4 4 4 2 1.1
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED	ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >3.0 limit/base >4	0 0 54 <1 900 1048 994 1172 2694 <i>current</i> 3 1 0 <1.0 <i>current</i>	2 0 54 <1 919 1188 980 1195 3595 history1 4 6 1 1.1 1.1 history1	30 0 26 <1 523 1529 697 830 2529 history2 4 4 2 2 1.1 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot %	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >3.0 limit/base >4 >20	0 0 54 <1 900 1048 994 1172 2694 <i>current</i> 3 1 0 <1.0 <i>current</i> 0.4	2 0 54 <1 919 1188 980 1195 3595 history1 4 6 1 1.1 1.1 history1 0.3	30 0 26 <1 523 1529 697 830 2529 history2 4 4 2 2 1.1 history2 0.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D3524 method *ASTM D7844	limit/base >25 >20 >3.0 limit/base >4 >20	0 0 54 <1 900 1048 994 1172 2694 <i>current</i> 3 1 0 <1.0 <i>current</i> 0.4 7.9	2 0 54 <1 919 1188 980 1195 3595 history1 4 6 1 1.1 1.1 history1 0.3 8.2	30 0 26 <1 523 1529 697 830 2529 history2 4 4 2 1.1 history2 0.5 8.5
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >20 >3.0 Iimit/base >4 >20 >30 Iimit/base	0 0 54 <1 900 1048 994 1172 2694 <i>current</i> 3 1 0 <1.0 <i>current</i> 0.4 7.9 19.1 <i>current</i>	2 0 54 <1 919 1188 980 1195 3595 history1 4 6 1 1.1 1.1 history1 0.3 8.2 19.8 history1	30 0 26 <1 523 1529 697 830 2529 history2 4 4 2 1.1 history2 0.5 8.5 19.9 history2
Boron Barium Molybdenum Manganese Magnesium Calcium Phosphorus Zinc Sulfur CONTAMINANTS Silicon Sodium Potassium Fuel INFRA-RED Soot % Nitration Sulfation	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	ASTM D5185m ASTM D5185m	limit/base >25 >20 >20 >3.0 Iimit/base >4 >20 >30 Iimit/base	0 0 54 <1 900 1048 994 1172 2694 <i>current</i> 3 1 0 <1.0 <i>current</i> 0.4 7.9 19.1	2 0 54 <1 919 1188 980 1195 3595 history1 4 6 1 1.1 1.1 0.3 8.2 19.8	30 0 26 <1 523 1529 697 830 2529 history2 4 4 2 2 1.1 <i>history2</i> 0.5 8.5 19.9



OIL ANALYSIS REPORT





	VISUAL		method	limit/base	current	history1	history2		
		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 Odor	scalar	*Visual	NORML	NORML	NORML	NORML		
		scalar	*Visual	NORML	NORML	NORML	NORML		
	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG		
	Free Water	scalar	*Visual		NEG	NEG	NEG		
	FLUID PROPER	TIES	method	limit/base	current	history1	history2		
	Visc @ 100°C	cSt	ASTM D445		11.1	11.0	11.3		
	GRAPHS								
	Ferrous Alloys								
m	12 iron								
Jun 29/23	10 - Iron chromium	-							
٦° ۲	8-								
	E 6-								
	2								
	0	~							
	Sep 15/22	Jun29/23		Nov9/23					
				2					
33	Non-ferrous Meta	ls							
Jun 29/23	copper								
7	8 - exercises lead								
	6								
	шdd								
	4								
	2								
		Language -	and and its of the West West West West	antenanting .					
		C)	21000000000000000000000000000000000000	53					
	Sep 15/22	Jun29/23		Nov9/23					
/23	∞ Viscosity @ 100°	,		E					
Jun 29/23	¹⁸ T			12.0	Base Number				
-	17- Abnormal			12.0					
	16 -			10.0 S					
	ç ¹⁵			8.0 6.0 8ase Number (mg KOH/g)					
	015 014 313			ي نه 6.0					
	ジェ13 Abnormal			Mump N 40					
	12 -								
	11-			2.0					
	10	en		0.0	2	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			
	Sep 15/22	Jun29/23		Nov9/23	Sep 15/22	Jun29/23			
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Laboratory	: WearCheck USA -	501 Madi		Constructors Inc 6036					
Sample No.		: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : SBP0004946 Received : 16 Nov 2023					1815 Y Stre		
Lab Numbe	r : 06010084	Diagnos			Lincoln, N				
	Unique Number : 10749228 Diagnostician : Don Baldridge						US 6850		
				Contact: Jack Linha					
tificate L2367 Test Packag	ge : FLEET (Additional rt, contact Customer Serv					jackl@construc			